Land Based Fishing Platforms: a guide to understanding current technologies and the processes required to developing fishing jetties

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Best Practices for Future Fishing Platform Development

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In submitting this report, the researcher has agreed to FRDC publishing this material in its edited form.

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1. Acknowledgements

1.1 Fishability

The accessibility requirements detailed in this guide were developed in collaboration with Fishability incorporated which is a Western Australian volunteer based not-for-profit registered charity established in 2003 to provide and advocate for accessible fishing opportunities for people living with a disability. During 2023-24, Fishability's delivered 313 fishing events in Geraldton, Perth, Mandurah, Waroona, Busselton and Albany.

Fishability provided permission to use the images found on their "Fishability Map" within the guide and the related work such as the catalogued of Western Australian Fishing Locations.

Being the peak advocacy body for accessible recreational fishing, it is strongly recommended to contact Fishability for support, advice and advocacy on future fishing platform projects across Australia.

The Fishability website:

https://fishability.org.au/

1.2 JMC Marine Group

Jetty and Marine Constructions (JMC) specialise in bespoke marine structural construction and remediation. We are fully licensed and certified to perform and complete a comprehensive range of maritime services and infrastructure solutions. Which include marine transport, construction, fabrication, piling, and asset remediation.

We are highly qualified and trained to manage nearshore and offshore projects of all sizes and complexity, meaning we can help with anything from building a private jetty for a residential property to designing, planning, and constructing of a commercial wharf or a quay for public use.

Marine Structures and JMC Marine Group have joined forces to manufacture high-quality concrete and aluminium pontoons in Western Australia. This partnership combines Marine Structures' design and manufacturing expertise with JMC's construction capabilities and local knowledge.

JMC Marine Group now have the full capability to fabricate and install high quality floating and fixed marine infrastructure.

JMC Marine Group assisted in developing the understanding of floating platforms and their applications in modern fishing platform developments. Additionally, their expertise has assisted in understanding how certain environmental factors may influence a fishing platform development, and the common trends in optimal fishing platform design and construction techniques and materials.

The JMC Marine website:

https://jmcaustralia.com.au/

2. Executive Summary

This guide was prepared by Recfishwest, supported by the Fisheries Research and Development Corporation (FRDC) to consolidate best practices for the development of land-based fishing platforms across Australia. The project was undertaken to address increasing community demand for safe, accessible, and high-quality fishing infrastructure at a time when many existing jetties and platforms are ageing or unsafe. Through research, expert consultation, stakeholder engagement, and review of past and ongoing projects, the guide sets out the key considerations and processes required to plan, advocate for, design, and deliver fishing platforms that provide enduring social, economic, and environmental benefits.

Fishing is a major recreational activity in Australia, with more than 4.2 million people participating annually and 72% of Western Australians fishing from the shore at least once a year. Platforms and jetties play a crucial role in providing safe, inclusive access-particularly for families, young people, the elderly, and those with disability—and they also deliver substantial community, tourism, and wellbeing benefits. Recognising this, the guide offers a structured pathway for proponents to move projects from concept to construction.

The report identifies six overarching stages common to platform development: opportunity awareness, needs analysis, location assessment, stakeholder engagement, feasibility study, and design/engineering. It outNewsJOke2908*

lines best practice approaches for each stage, including building a strong narrative supported by evidence, preparing realistic budgets, and conducting rigorous feasibility assessments.

Design guidance is a central feature of the document, covering:

Platform types (fixed, floating, multi-level) and how environmental factors such as swell, tide, depth, and seabed conditions shape suitability.

Platform shapes (straight, rectangular, L-shaped, T-shaped), with T-shaped platforms generally providing the best fishing capacity and value for money.

Accessibility standards, developed in collaboration with Fishability, to ensure inclusive all-abilities design.

Materials and maintenance planning, with strong recommendations for durable, low-maintenance options like HDPE-sleeved steel piles and composite decking.

The guide also stresses the importance of environmental assessments and highlights how platforms can create ecological benefits by providing new habitat for fish aggregation and marine growth. It notes emerging innovations such as augmenting fishing platforms with artificial reef modules to further enhance both fishing experiences and environmental outcomes.

Ultimately, the document provides a practical resource for community groups, local governments, and developers, equipping them with the knowledge to navigate regulatory processes, engage stakeholders, and advocate effectively. By following

these best practices, proponents can deliver fit-for-purpose fishing platforms that are safe, inclusive, environmentally responsible, and deeply valued by the communities they serve.

3. Introduction

Fishing is a popular and important leisure activity amongst Australians. Approximately 4.2 million Australians visit oceans, estuaries, impoundments and rivers at least once a year to go fishing (Moore et al., 2021). Recreational fishing is an important activity that helps boost mental and physical well-being, injects $11 billion into the national economy and provides 100,000 jobs (Moore et al., 2021). Recreational fishing provides an outlet for social interaction and a way to enjoy time outdoors.

The majority of fishers across Australia fish from land. As an example, in Western Australia, approximately 72% of recreational fishers undertake land-based fishing at least once a year (McLeod and Lindler, 2018). Land-based fishing involves fishing from places such as beaches, riverbanks, rocks and cliffs, rock walls (including groynes and breakwaters), fishing platforms, and jetties. Land-based fishing is the most accessible type of fishing and incurs lower entrance costs compared to boat-based fishing.

In Western Australia alone recreational fishing is worth $2.4 billion dollars to the economy which, is spent willingly by the 750,000 recreational fishers in the state.

Land-based fishing is the starting point for many generations of fishers and will never stop being a vital first (and sometimes final) step in the fishing journey for many generations. Land-based fishing offers accessible fishing opportunities to young people, families and the elderly as well as those with different accessibility requirements. Many locations available to land-based fishers are not accessible to everyone, with many rock fishing locations and isolated areas not being accessible to all. Adding to shore-based accessibility challenges is the fact that many jetties and platforms that are commonly used by fishers are deteriorating to a point where they are no longer safe to use.

The construction of more jetties and platforms provides places for all members of the community to come together and celebrate the high quality fishing experiences that Australia has to offer.

Fishing platforms and jetties are often vital to the towns they are in, providing people places to socialise, a place to learn to fish or for experienced fishers to ply their trade and for everyone to enjoy being outdoors. The case study that accompanies this guide (Appendix A) highlights how important recreational fishing platforms are for regional towns. They become part of a town’s fabric and hold great meaning to residents and visitors alike. Additionally, the land-based fishing amenity that fishing platforms provide to people with accessibility requirements is unmatched. Locations such as the beach, breakwaters and rocks largely do not fulfil the accessibility requirements that purpose-built fishing platforms can.

Accessibility requirements detailed in this guide were developed in collaboration with Fishability Incorporated, a Western Australian volunteer based not-for-profit registered charity established in 2003 to provide and advocate for accessible fishing opportunities for people living with a disability. Between 2023 and 2024 Fishability delivered 313 fishing events in Geraldton, Perth, Mandurah, Waroona, Busselton and Albany. Therefore, they are well equipped to provide evidence-based advice regarding the best practice to designing accessible fishing platforms.

This project has undertaken research, surveyed participants, collated information, and interviewed subject matter experts to better understand what is required to construct new jetties and fishing platforms. This guide can be used by individuals and organisations throughout Australia who are seeking to have a jetty or fishing platform constructed in their local jurisdiction.

4. Purpose

The following document provides an overview of what a fishing platform development entails, and how a proponent for fishing platform development can go about researching, developing, and making a case for their project. The goal of the guide is to provide a clear outline of the factors that can influence how a fishing platform project can progress and how certain aspects of the project can influence the final cost and choices that are made by external parties such as the relevant decision makers and engineering and construction organisations.

Developing a better understanding of fishing platform projects will work to counteract the issue of these projects not coming to fruition because proponents will be better prepared for the challenges that will need to be overcome for a positive outcome to be achieved.

Understanding the immense value that fishing platforms offer the community, which is outlined throughout the guide and in the case study (Appendix A), will help support advocacy for fishing jetty and platform developments.

4.1 Definition of a Fishing Platform

For the purpose of this document, a “fishing platform” is *a man-made structure, fixed to land, that provides a stable, level surface for fishing. It allows fishers safe and accessible access to the water in areas where fishing is permitted*. Thus, a breakwater would not be considered a fishing platform, but a concrete platform constructed on top of it would be considered a fishing platform. This also allows for structures such as the platforms associated with boat ramps, or commercial jetties that allow fishing to be considered as fishing platforms. A purpose-built fishing platform follows the same definition but is designed specifically for fishing. A mixed-use platform is a platform, that has features for fishers but is also in place to offer recreation to other user groups such as swimmers or general visitors. Mixed-use platforms will be most common on large-scale recreation projects.

5. Preliminary Processes for Fishing Platform Development

The development of fishing platforms is a complex process influenced by numerous variables. Insights from past and ongoing jetty and platform projects allow for the understanding of critical considerations in the design and development phases, which can significantly impact the success of future projects.

A review of previous projects highlights the expertise and capabilities necessary to effectively advocate for and manage initiatives of this scale. Successful proponents have demonstrated the ability to navigate complex social, economic, engineering, and environmental factors. In many instances, technical expertise across these areas, including overall project management, is facilitated through specialist consultations.

This guide provides a high-level overview to assist prospective proponents in considering key factors within a local context. However, it should not be regarded as a comprehensive blueprint for project success.

The flow chart below outlines the six overarching stages of fishing platform development that are largely consistent amongst past fishing platform or jetty projects. These stages are not always linear and there may be a need to go back and revisit particular stages depending on stakeholder support, available funding and approvals from the relevant decision makers. The below stages are a common way that fishing platform projects progress. The guide provides an outline of how to progress through the early stages of the development process, and the best practices that can be followed during the later stages to ensure the delivery of quality fishing platforms in the future.

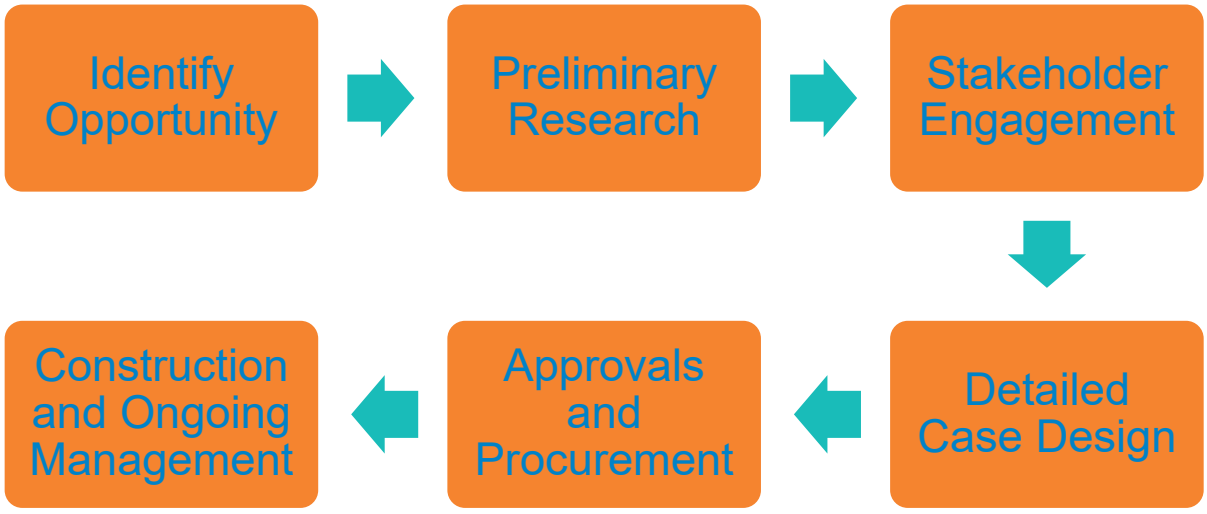

Figure 1. A diagram outlining the common stages in the fishing platform development process

5.1 Being aware of opportunities for new fishing platforms

Many infrastructure projects aimed at enhancing community amenities benefit from a well-defined and clearly articulated need. These projects often emerge from careful consideration of the potential opportunities a jetty or fishing platform could provide to a community.

The demand for such infrastructure may arise due to a lack of existing jetties and platforms, driven by community advocacy for new recreational spaces. Additionally, new developments such as jetties, boat launching facilities, or commercial infrastructure present opportunities for fishing-related amenities to be considered.

To successfully advocate for jetty and platform projects, prospective proponents must remain well-informed about emerging and existing opportunities. Key strategies for staying updated include:

- Monitoring news reports on relevant developments
- Exploring government funding opportunities, particularly those supporting recreational activities
- Identifying commercial developments where community investment from beneficiaries could support new infrastructure
- Engaging local members of government of council/shire members to see if there is appetite for investment in a new development
- Documenting community feedback about need for new fishing platform development/lack thereof in their relevant regions

Being aware of these areas will help potential proponents identify opportunities for advocacy and improvements in the land-based fishing infrastructure in their relevant areas.

5.2 Needs Analysis

The foundation of any new land-based fishing structure project begins with identifying a clearly defined need that the project aims to address.

A well-articulated need will benefit proponents' future advocacy efforts and proposals to decision makers and key stakeholders. Identifying and articulating the project's necessity will strengthen the case for investment and community support.

3.2.1 Key Considerations

Defining the Project Objectives:

What is the primary purpose of the fishing platform?

- Providing recreational fishing opportunities for residents and visitors?

- Enhancing access to high-quality fishing locations?
- Supporting tourism and local economic development?
- Improving accessibility for fishers with disabilities or mobility challenges?

Existing Fishing Platforms in the Area (25-50km Radius):

- Are there any dedicated fishing platforms?
- What jetties are currently open to fishing?
- How accessible are the current locations for important user groups, including families, elderly fishers and those with disabilities.
- Are there jetties where fishing occurs but where stakeholder conflicts exist (e.g., between fishers, boat users, and swimmers)?
- Are there marinas or other infrastructure that could accommodate fishing activities?

Existing Non-Fishing Platform Locations:

- What non-jetty fishing locations are available?
    - Rock walls, breakwaters, and groynes
    - Beaches and sandbars
    - Cliffs and riverbanks
- How accessible are these locations for different user groups, including families, elderly fishers, and those with disabilities?
- Can the proposed jetty design accommodate users with disabilities, including appropriate ramps, railings, and other safety features?

Community Demand and Historical Context:

- Have there been previous community requests or advocacy efforts for a fishing jetty?
- What formal or informal support level exists (e.g., petitions, council interest, social media engagement)?
- How will this project preserve or enhance local cultural and historical connections to fishing?

Building the Case for a New Jetty:

The preliminary case for a new fishing platform will be based upon identified community need, the gaps in the currently available infrastructure and the projected benefits that the new platform will provide. This needs analysis will serve as the foundation for feasibility studies, community consultations, and funding applications.

The outcome of the initial needs analysis will provide a clearer understanding of the current context of land-based fishing platforms in the relevant area.

Additionally, it offers a foundational understanding of what the new development will provide to the local population and begins to build the case for the new platform that can be presented to local government authority, state government, and other authorities necessary for its support.

5.3 Location Assessment

A comprehensive location assessment is a critical component of the preliminary investigations for a new fishing platform. This process provides a holistic understanding of the project and helps proponents anticipate key considerations when determining suitable construction sites.

Site selection informs feasibility and supports project advocacy by allowing for visual mock-ups and conceptual designs that demonstrate practical application. This foundational work strengthens the case for development, and presenting well-researched location options enhances project credibility.

3.3.1 Key Considerations

Proximity and Accessibility:

- **Closeness to population centres** – Platforms should be easily accessible to local residents and visitors, though exceptional fishing opportunities in remote but accessible areas may justify development.
- **Ease of access** – Consideration should be given to road infrastructure, parking, and transport links.

Availability of Supporting Amenity:

- Existing infrastructure or capacity for new amenities
    - Car parks
    - Accessible toilets
    - Graded or sealed access paths
- Additional facilities that enhance platform usability
    - Nearby tackle stores
    - Food and drink outlets

Shared Use Considerations:

- Does the location currently (or have the potential to) support other user-groups?
    - General visitors (walkers, nature enthusiasts)
    - Boating and boat-launching facilities
    - Commercial marine activities

    - Snorkelling and diving communities

Fishing Quality and Potential:

- Recent catch reports and species availability – Assess whether fishing activity in the area supports the need for a dedicated platform.
- Local expert insights – Engage with tackle shops and fishing clubs to identify locations where a platform would improve access and fishing quality.

Environmental and Structural Factors:

- Presence of natural structures that influence fishing
    - Rocky structure
    - Seagrass beds
    - Reef
- Water Depth
    - Longer jetties typically provide access to deeper waters, while smaller platforms enhance accessibility for shore-based locations such as rock walls.
- Tidal considerations
    - Platforms in areas with significant tidal ranges (e.g., northern Australia) must account for fluctuating water levels, particularly for land-based infrastructure.

Addressing Non-Fishing Stakeholders

Other stakeholders utilising potential fishing platform locations should not be considered obstacles but rather key groups to engage in consultation. Involving diverse user groups can add value to the project, as platforms can be designed to accommodate multiple interests, including:

- **Swimmer-friendly features** – Ladders and designated entry points.
- **Visitor engagement elements** – Informational signage on marine life, history, and conservation.
- **Multi-purpose design considerations** – Customisable features to balance fishing, with other recreational activities like swimming, walking and other general visitors to the platform.

Understanding the Administrative Landscape

Once suitable physical locations have been identified, the next step is an administrative assessment to determine land ownership, regulatory approvals, and key stakeholders.

Land Ownership and Approvals:

- **Standalone fishing platforms** – Determine the entity holding the land title, as they will be key contacts for leasing or project approvals.
- **Fishing platforms within larger developments** – Identify the primary proponent of the larger project to integrate the fishing platform into broader planning efforts.

Key Stakeholders and Regulatory Bodies

There are a set of regulatory bodies that will govern particular rules, regulations and the approval process of a fishing platform or jetty development. These will differ across each state, unless federal departments such as the Department of Climate Change, Energy, the Environment and Water are concerned with the project. In general, the relevant key stakeholders and regulatory bodies will fall into the following categories:

- Recreational Fishing Advocacy Organisations
- Accessibility Advocacy Organisations
- Transport Department/Regulators
- Local Government Authorities
- Land and Property Authorities
- Traditional Owners
- Port Authorities
- Development Commissions
- Environmental Agencies

Using these categories, proponents can investigate who the relevant specific stakeholders are to their potential development. A list of potential stakeholders has been developed for guidance (Appendix B).

Conducting a thorough location assessment ensures that site selection is based on a balanced evaluation of accessibility, infrastructure, environmental factors, and stakeholder engagement. This groundwork strengthens the justification for the project and facilitates a smoother pathway through planning, consultation, and approval processes. Further information on key stakeholder identification and engagement is found in section 4 of this document.

Key Stakeholder Examples from Western Australia

In Western Australia, several organisations and authorities play a role in fishing platform development, including but not limited to:

- **Recfishwest** – Advocacy and support for recreational fishing infrastructure.
- **Fishability** – Ensuring accessibility for fishers with disabilities.
- **Department of Transport** – Regulatory oversight for maritime infrastructure.
- **Local Government** Authority– Approvals, funding opportunities, and community engagement.
- **Landgate** – Provides online mapping tools to identify land ownership; certificates of title can be purchased for verification.
- **Port Authorities** – Some proposed sites may fall under port jurisdiction, particularly breakwaters that are already used informally for fishing.
- **Development WA** – Tracks large-scale developments that may present co-investment or integration opportunities.
- **Department of Biosecurity, Conservation and Attraction (DBCA)** – The DBCA may be involved in fishing platform developments in areas that may fall under their authority. They will assess that fishing platforms are compliant with environmental regulation and impacts on recreational amenity as a result of its installation.
- **Environmental Protection Authority of Western Australia (EPA WA)** – Conducts environmental impact assessments for fishing platform projects.

5.4 Consider Upgrading Existing Infrastructure

In some cases, enhancing existing infrastructure may be a more viable and cost-effective alternative to developing a brand-new fishing platform. Upgrading or modifying current structures can significantly improve fishing amenities without the cost of a full redevelopment or construction of a new platform.

During the location analysis, the platform's owner may have been identified. This entity can be engaged to discuss potential upgrades, obtain necessary approvals, and explore funding opportunities. Numerous structures may be suitable for modification to enhance fishing accessibility and experience, and it is up to the project proponent to determine which warrants further investigation.

Existing structures that may be suitable for upgrades:

- **Jetties** – Adding fishing-specific amenities to existing structures.
- **Aging fishing platforms** – Restoring or expanding facilities to extend their usability.
- **Boat ramps** – Incorporating fishing-friendly features where appropriate.
- **Boardwalks** – Enhancing access for fishers by integrating dedicated fishing zones.

Accessibility Enhancements:

- Improved access pathways, including:
    - Ramps for wheelchair and pram access
    - Sealed or graded pathways for safer movement
- Infrastructure modifications:
    - Kerbing to ensure the platform is useable by wheelchair users
    - Guard rails (if requested by relevant user groups for safety)

Fishing-Specific Upgrades:

- Bait chopping board
- Fish cleaning stations with sinks, running water and proper drainage
- Fishing rod holders
- Bins for the disposal of tackle and other fishing related rubbish, for example Reel It In fishing line/tackle bins
- Fish identification graphics and educational fishing signage

Comfort and Safety Features:

- Seating areas
- Shelters

- Lighting

By identifying and upgrading suitable existing structures, proponents can deliver meaningful improvements for recreational fishers while optimising funding efficiency and reducing project complexity.

5.5 Developing a Sound Narrative

Fishing platform project proposals tend to require persuasive narratives. This means developing a case for the fishing platform development which provides decision makers with strong reasoning for the benefits and positive impacts the infrastructure will provide to their town or region. Using statistics, figures and anecdotal evidence, (such as those found within the Esperance Jetty Case Study (Appendix A)) will help develop a narrative outlining the positive impacts of fishing platforms, including investment in such a project leading to positive local outcomes.

The narrative is developed by understanding the context of fishing platforms in the area, knowing that there is a lack of safe and accessible options, and explaining the benefits of improving these options for land-based fishers. Community consultation will also help develop the narrative by gaining letters of support, quotes, and general community support for the platform that demonstrates a need for a platform from within the community.

Combining community consultation outputs with research, statistics and facts about potential positive outcomes will make up a sound narrative for the fishing platform project and go a long way in demonstrating to decision makers of the importance of a proposed project.

5.6 Cost Considerations and Budget Planning

When preparing a case for a fishing platform, a comprehensive understanding of potential costs is essential. Accurately identifying where costs may arise enables proponents to better manage community expectations, develop realistic budgets, and reduce the likelihood of unexpected financial impacts throughout the project.

3.6.1 Key Cost Drivers in Fishing Platform Development

Several procedural and construction-related factors influence the total cost of a fishing platform project. These include:

Feasibility Studies

A feasibility study generally involves engaging a consultancy to assess the economic and social viability of the platform.

These studies typically evaluate:

- Construction, maintenance, and demolition costs
- Projected return on investment
- The potential number of users the fishing platform will see

Funding bodies or decision-makers often initiate feasibility studies to determine the likelihood of project success.

Engineering Consultation

Engaging engineering consultants is an essential step in the design and planning phase. These professionals provide:

- Detailed cost estimates for construction
- Design input and technical guidance
- Compliance assessments for environmental and structural requirements

Logistics and Mobilisation

The cost of mobilising construction equipment is heavily influenced by the site's location and accessibility to the required construction equipment. Considerations include:

- Transport and operation of barges, cranes, and other marine or land-based equipment
- Delivery of materials, which varies depending on distance from supply hubs

Construction and Engineering

Key components of construction-related costs include:

- Design and construction of piles and superstructure
- Materials (steel, concrete, composite decking, etc.)
- Labour and contractor fees

Maintenance Planning

Best practice requires that a maintenance budget is established during the planning phase. This is a common requirement for government-funded infrastructure, as seen in the Busselton Jetty refurbishment, Esperance Jetty construction, and the proposed new Ammo Jetty in Coogee. Maintenance costs scale with platform size, environmental exposure, and material selection.

Demolition and Decommissioning

Long-term asset planning should include a provision for eventual decommissioning. Some funding bodies or planning authorities may require this to be acknowledged or budgeted at the outset.

3.6.2 Researching Costs of Comparable Projects

Investigating the cost of previous jetty and fishing platform developments can provide a valuable benchmark when estimating project costs. Useful sources include:

- Media articles announcing funding commitments
- Government press releases and budget papers
- Grant program recipient lists, such as:
    - Regional Economic Development (RED) Grants
    - Recreational Boating Facilities Scheme (RBFS)
    - Outdoor Adventure Tourism Package
- Private sector investment announcements in community infrastructure
- Direct contact with engineering and construction firms, which may provide:
    - Past project summaries
    - Itemised cost breakdowns
    - Timelines and materials used

3.6.3 Cost Estimating in the Planning Phase

During the early stages of planning, a Rough Order of Magnitude (ROM) estimate is typically sufficient to determine project feasibility and attract initial support. These estimates may take the form of a broad cost range—e.g. $1 million to $2.5 million—based on known variables and comparable projects.

Establishing an early cost range:

- Helps define the scope and ambition of the project
- Enables stakeholders to identify realistic funding targets
- Supports early engagement with funding bodies, local governments, and community groups

As the project progresses through community consultation, design, engineering, and environmental approvals, cost estimates will be refined, and more accurate budgeting can be established.

Initial funding will typically be required to support:

- Preliminary engineering assessments
- Concept designs
- Environmental and planning approvals
- Community engagement activities

Subsequent funding stages can then support detailed design, construction, and ancillary works. A well-prepared budget will inform parts of the feasibility study (Section 5).

6. Key Stakeholder Engagement

6.1 Key Stakeholder Identification

It is important to know how to identify key stakeholders that will be relevant to proposed fishing platform projects. These will be the individuals, groups, organisations, departments, or decision makers that will determine the potential success or failure of the project through their support or lack thereof. By understanding the context of the project, the proponent will be able to identify where and what to research to identify the key stakeholders.

There are main categories of key stakeholders that will be relevant to different stages of the fishing platform development. Understanding these categories will help proponents to know where to look when engaging stakeholders:

- Government and Regulatory Bodies
    - Local Council/Shire/City
    - State Government departments
        - Fisheries, Transport, Environment, Regional Development
    - Port authorities
    - Federal Government departments
- Traditional Owners
- Local Community
    - Fishing clubs
    - Community groups
- Local Industry/Commercial Operations
    - Tackle stores
    - Commercial fishers
    - Boat operators

Before these key stakeholders are engaged, they can be organised in different categories. Effective developers understand the stakeholders that will have the most influence over their project, the stakeholders whose support is most important to gain, and the stakeholders that will be most likely to be supportive or unsupportive.

6.2 Key Stakeholder Consultation

Consultation with these stakeholders will involve gaining an understanding of their level of support for the project, their influence over it, and the requirements they might request to be met throughout the project. Key stakeholders could also subsidise

funding for the project, or assist in grant applications and support, so it is important to consult them once they are identified and cultivate positive relationships with them. Consulting key stakeholders such as the land title owners, construction or engineering services, relevant government departments, and decision makers as early as possible will be paramount in successful engagement throughout the project. Some ways that key stakeholders can be engaged are:

- Community events
    - Community events may draw local members, councillors or relevant government department members. Proponents can then engage these stakeholders during the events
    - Fishing competitions may also be an appropriate context in which to introduce the project to community stakeholders
- Industry events
    - Trade shows, conferences, meetings, working groups are all places where key stakeholders may be in attendance. Take the opportunity to make an introduction and provide preliminary information about the project and enquire about further contact
- Create a working group
    - Invite key stakeholders and engage them in a formal setting. Get to understand the needs, attitudes and views of the stakeholders in relation to the proposed project
- Formal meetings
    - Organised times within business hours to conduct formal meetings with smaller groups or individual stakeholders. A more detailed approach for that specific context can be utilised in a meeting which may yield the proponent a better understanding of expectations, potential requirements and support.
- Informal meetings
    - Organise times to consult key stakeholders in a more relaxed setting.
        - This approach may only be suited to particular stakeholders, such as community groups or fishing clubs
- Phone call or email
    - Simple forms of communication can be very effective, particularly with key stakeholders that are very busy or are involved in a large number of other projects.

Document stakeholder engagement, identifying the primary contact, how they like to be contacted and keep records for when they were contacted and what resulted from the consultation. Keeping track allows for no ‘doubling up’ or over contact or forgetting the progress that was made in previous consultation. Maintain contact with the key stakeholders throughout the proposal process and endeavour to understand their level of support and how they can influence the project.

If it becomes clear that a key stakeholder does not support the fishing platform development, engage them to understand what can be done about this. They might have requirements such as inclusion of other stakeholders (swimmers, kayakers or pedestrians) or show concern over the impacts the platform may have on the area. Developing a strong case for the platform, through community engagement, research and consultation of other key stakeholders will aid the proponent when unsupportive key stakeholders are re-engaged.

7. Outlining a Feasibility Study

7.1 Developing a Feasibility Study

A feasibility study is a comprehensive assessment that evaluates potential designs, key stakeholders, economic considerations, and the overall viability of the proposed fishing platform. A feasibility study examines multiple factors, including site selection, structural design, financial implications, and community engagement. A feasibility study will be conducted by a consultancy firm, research organisation or in-house, if the proponent can do so. It is commonplace for a proponent to build their case themselves, which can be done with guidance from the previous sections of this guide, however a commissioned feasibility study will in most cases, be required to progress to further approval and funding stages of a fishing platform project.

5.1.1 Key Components of the Feasibility Study

Location Analysis

The study will assess various potential sites for the fishing platform based on the following criteria:

- **Site suitability** – Evaluation of water depth, swell conditions, tidal range, and shoreline characteristics (e.g., sand, rocks, banks).
- **Accessibility and amenities** – Proximity to parking, pathways, public parks, tackle shops, food and beverage outlets, and restroom facilities.
- **Fishing quality** – Analysis of nearby fishing locations and the overall recreational fishing potential at each site.

Platform Design and Cost Estimation

- Engage an engineering consultant to develop a concept design for the platform at selected locations.
- Obtain a cost estimate for construction, including materials, structural integrity, and compliance with relevant safety and environmental standards.

Economic Analysis

- **Cost assessment** – Evaluate capital expenditure for construction and long-term maintenance costs. Additional civil works required for site preparation will also be factored into the overall budget.
- **Economic impact assessment** – Project the economic benefits the platform is expected to generate, including:
    - Increased visitor numbers and associated tourism growth.
    - Expenditure linked to fishing trips, including tackle, bait, food and beverages, fuel, and other related spending.

Community and Stakeholder Engagement

- Conduct community consultation to gauge public sentiment and gather feedback on the proposed development.
- Engage key stakeholders, including local fishing clubs, fishing peak bodies and other community organisations with a vested interest in the project.

Final Evaluation and Recommendations

The study will provide a detailed evaluation of the fishing platform's viability, including:

- Projected costs and anticipated economic contributions to the town/region.
- Potential risks and benefits associated with the development.
- Overall feasibility of proceeding with the project based on technical, economic, and social considerations.

This structured approach ensures that all critical factors are thoroughly assessed, supporting informed decision-making on the future of the fishing platform.

8. Design and Engineering Considerations

The design of a fishing platform plays a crucial role in determining its usability, accessibility, and overall quality as a community fishing amenity. A well-designed platform enhances the fishing experience while ensuring safety, durability, and environmental compatibility.

The physical properties of the platform, the environmental conditions of the site, and engineering requirements will influence the final construction approach. Factors such as water depth, wave action, tidal range, and structural stability must be carefully evaluated.

A thorough understanding of environmental influences, design principles, and construction materials will better prepare proponents for this stage of the project, ensuring a well-informed and strategic approach to developing a sustainable and functional fishing platform.

8.1 Principles of Design

6.1.1 Value for Money

When allocating funding for a new fishing platform, it is essential to ensure the project delivers maximum value for money. The primary objective is to provide a well-designed platform that fits an appropriate number of fishers and is optimally designed for the activity to be conducted on the platform. Avoiding over engineering or constructing an inadequately designed platform for its environment is paramount.

A common challenge in such projects is the tendency for proposals to feature platforms that are oversized, inefficiently designed for fishing activities, or structurally overengineered for the specific environmental conditions. These factors can lead to inflated costs, reducing the likelihood of securing funding. To mitigate this risk, a strategic approach is needed—one that optimises materials, design efficiency, and structural requirements while maintaining durability and functionality.

By understanding the environmental conditions that influence material selection and incorporating design principles that prioritise both user needs and cost efficiency, proponents can establish clear criteria for consultants. These criteria will help guide proposals and ensure that cost estimates align with funding expectations, increasing the project's viability and appeal to decision-makers.

6.1.2 Fishing Experience

The design of a fishing platform directly impacts the quality of the fishing experience for users. Key factors such as shape, size, and layout determine how effectively the platform serves the recreational fishing community.

Adequate spacing is crucial to ensure a comfortable and enjoyable fishing experience. Based on the Western Australian Fishing Platform Catalogue (Appendix C), an estimated 1.8 metres of edge space per fisher is considered ideal. Platform shape is another critical consideration, as certain configurations allow for better distribution of fishers and more efficient use of space.

In addition to overall dimensions, site selection and anticipated user demand should guide the platform's design. Features such as lower-level extensions closer to the waterline can further enhance accessibility and fishing experience, as supported by the Esperance Jetty Case Study (Appendix A). Strategic design choices that cater to a diverse range of fishers will maximise the platform's usage and long-term value.

The factors that should be considered when designing a platform that creates enjoyable fishing experiences are:

- Location
- Accessibility
- The platform provides amenity that benefits fishing
- There is space for fishers to conduct the activity
- Unimpeded fishing access for all using the platform
- Fish and other marine life can congregate around the platform
- Fishing safety

6.1.3 Accessibility

Ensuring that future fishing platform developments are accessible to all is very important. Accessibility is a major drawcard of fishing platforms as it offers opportunity to those who may have restricted access to other fishing points such as the beach or rock walls. Fishing platforms and other forms of new fishing infrastructure should always consider the accessibility of the facility to those with limited mobility and other accessibility requirements. Fishing has many well reported health and well-being benefits for people with disability, and designing accessible land-based fishing platforms will enable everyone to enjoy the activity.

In Western Australia, Fishability advocates for and facilitates the discussion and prioritisation of all-ability fishing access on new fishing infrastructure developments or potential upgrades. Consultation with the relevant accessibility advocacy body, such as the Western Australian based Fishability will ensure the perspectives of all users are considered and the correct design choices made to provide proper amenity to all users.

Currently, Fishability is at the forefront of understanding the needs of fishers with accessibility requirements and is consulted by the Western Australian government on upcoming and recent projects such as the new Bunbury accessible fishing platform, the Ammo Jetty rebuild, and the Esperance Jetty.

8.2 Platform Design Ideologies

Fishing platforms can generally be categorised into two primary design types: fixed platforms and floating platforms. Each has distinct characteristics, varying in construction methods, installation timeframes, costs, and suitability for different environments. The choice between a fixed or floating platform depends on site conditions, project objectives, and stakeholder preferences.

Advancements in floating platform technology have made them an increasingly cost-effective alternative to traditional fixed platforms. In situations where both options are feasible, the decision should be based on a combination of engineering assessments, cost comparisons, community consultation outcomes, and funder preferences.

6.2.1 Fixed Platform

A fixed platform is a permanent, stationary structure anchored to the shoreline, maintaining a consistent elevation regardless of water level fluctuations. These platforms are typically supported by piles driven into the seabed at regular intervals, which provide structural stability for the decking above.

In certain cases, fixed platforms can be constructed on top of rock walls, breakwaters, or steep banks to provide fishers with better access to the water. When installed on stable ground, these platforms may not require additional piling into the seabed.

The defining characteristic of a fixed platform is its static elevation, meaning it does not rise or fall with changing water levels, unlike floating platforms. This design can offer increased durability and resilience in high-energy environments.

Figure 2. Image of Palm Beach Jetty in Rockingham. Source: Visit Rockingham, retrieved from: https://visitrockingham.com.au/palm-beach/

6.2.2 Multi-level Platform

A multi-level platform is a subcategory of fixed platforms, incorporating at least two decks at varying heights. This design is particularly beneficial in areas with large tidal ranges, as seen in larger-scale developments such as the recently constructed Spoilbank Marina fishing platform in Port Hedland.

In addition to accommodating tidal fluctuations, lower-level platforms are often included in fishing platform designs to bring fishers and other users closer to the water level, enhancing accessibility and the overall fishing experience. For example, Busselton Jetty, which is built high above the water, features dedicated lower-level fishing platforms to ensure a more engaging experience for recreational fishers.

The Esperance Jetty case study (Appendix A) highlights the positive reception of a lower-level landing at the jetty's end. While the main deck provides excellent fishing opportunities, having the option to fish at a lower level improves functionality and adds value to the user experience.

Lower-level landings can also be integrated into non-fishing-specific jetties, providing land-based fishers with a safe and dedicated space closer to the water. This design consideration should be encouraged in all jetty construction projects.

Figure 3. An example of a multi-level platform, the Broome Town Jetty (WA). Source: Landmark Products, retrieved from https://www.landmarkpro.com.au/coastal-skillion-restroom-by-landmark-products-copy/

6.2.3 Floating Platform

A floating platform is distinguished by its ability to rise and fall with changing water levels, offering a flexible and adaptive alternative to fixed structures. These platforms rest on the water's surface and are typically secured using a gangway and anchor piles that are driven into the seabed.

Unlike fixed platforms, floating platforms require significantly fewer piles, as their primary function is to keep the structure in position rather than provide direct support. The connection between the platform and the piles is usually facilitated by a sleeve mechanism, allowing smooth vertical movement in response to tidal fluctuations.

Alternative anchoring methods also exist, such as the chain and pulley system, where submerged anchors secure the platform using tensioned chains. This method can be advantageous in certain environmental conditions where traditional piling is less suitable.

Floating platforms are particularly well-suited for locations with large tidal ranges, such as those found in northern Australia. Because the platform remains on the water's surface, it remains accessible to fishers and other users throughout a greater portion of the tidal cycle compared to a fixed platform installed in the same location. This adaptability makes floating platforms a practical, cost-effective solution for areas where fluctuating water levels impact accessibility and usability. However, in northern waters, the presence of crocodiles may influence design choices, as there are locations where being too close to the waterline poses safety risks. These considerations would typically be addressed during the design process when determining the most appropriate platform type.

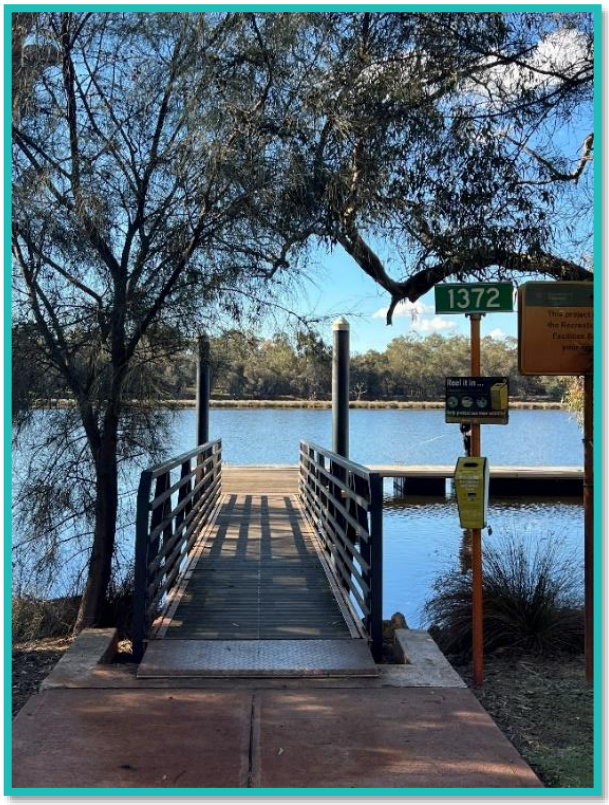

Figure 4. An example of a floating platform, the Tranby Jetty, located in Maylands, Western Australia

8.3 Platform Shape

The shape of a fishing platform plays a critical role in determining its usability, fishing capacity, and flexibility for additional amenities. The chosen shape is influenced by several factors, including the platform's location, surrounding environment, and overall size. Different shapes offer varying degrees of accessibility and functionality for fishers.

The four primary platform shapes are:

- Straight Platforms
- Rectangular Platforms
- L-Shaped Platforms
- T-Shaped Platforms

6.3.1 Straight Platform

A straight platform is a narrow structure that extends out into the water. While simple in design, this configuration is not always ideal for fishing-specific platforms due to its limited fishing space along the edges. These platforms can serve a purpose where

maximising access to deeper water and a gradient of depths along the length of the platform has been identified to be a priority.

Larger-scale straight platforms, such as Busselton Jetty and Esperance Jetty incorporate wider walkways, square-ended sections, and lower-level fishing platforms, making them more functional for recreational fishing. However, for smaller-scale developments, alternative designs with greater edge space should be prioritised to enhance fishing accessibility and user experience.

Figure 5. An example of a straight platform, the Swanbrick Jetty, located in Walpole, Western Australia. Source: Fishability

6.3.2 Rectangular platforms

A rectangular platform is characterised by its greater width relative to its length, meaning it extends along the shoreline rather than far into the water. This design can be a highly suitable option for fishing platforms, depending on the site conditions and intended application.

Rectangular platforms are particularly effective in enhancing fishing access along rock walls and breakwaters, where they provide a stable, elevated surface for fishers. These locations often feature deep water close to shore, making them ideal for land-based fishing without the need for a platform to extend significantly into the body of water.

For sites where deep water is accessible near the shoreline but where a long, outward-extending platform is impractical, a rectangular platform presents an effective solution.

Figure 6. An example of a rectangular platform, the Turkey Point Fishing Platform, located in Bunbury, Western Australia. Source: Fishability

6.3.3 L-Shaped Platform

An L-shaped platform consists of a straight section that extends outward into the water, with a perpendicular leg that extends left or right at the end, running parallel to the shoreline. This design provides significantly more fishable area than a straight jetty, as users can fish both toward and away from the shore from the extended section.

L-shaped platforms are commonly used for shorter jetties, residential or private use fishing platforms, and smaller-scale structures in coastal and estuarine environments across Western Australia. Their compact yet efficient design makes them an effective option for locations where space is limited, but increased fishing access is desired.

Figure 7. An example of an L-shaped platform, the Gunbower Street Jetty, located in Mosman Park, Western Australia. Source: Fishability

6.3.4 T-Shaped Platform

A T-shaped platform consists of a straight section extending outward into the water, with a perpendicular section at the end that extends left and right, forming the shape of a "T."

This design is highly recommended for future fishing platforms, as it provides the greatest fishing space and flexibility of use. Given that most fishing platforms are located in inshore environments, extending a platform unnecessarily far into the water does not always offer additional benefits. Instead of constructing a long, narrow platform (e.g., 100 metres in length), a more efficient approach could be to build a 75-metre-long platform with a 25-metre-wide perpendicular section at the end.

This configuration maximises fishing space by increasing the amount of accessible platform edge, allowing more fishers to cast in different directions. Additionally, it

ensures better value for money, as resources are allocated to enhancing the fishing experience rather than extending the platform beyond what is necessary.

Figure 8. An example of a T-shaped platform, the Port Denison Fishing Platform, located in Port Denison, Western Australia. Source: Fishability

6.3.5 Summary of Platform Shape Choices

There are no fixed rules for determining the ideal platform shape for a given application. The final design is typically influenced by the fishing platform's proposed purpose, engineering assessments, environmental conditions, and existing infrastructure. However, from a fishing perspective, the T-shaped platform provides the most fishable space and is generally the preferred design in Western Australian developments, as seen in the construction of the new Ammo Jetty and the Bunbury Accessible Fishing Jetty. Both projects incorporated input from Recfishwest and Fishability, ultimately resulting in T-shaped platforms due to their superior usability for recreational fishers.

The L-shaped platform offers greater fishing space than a straight platform of the same length. This design can serve as a cost-effective alternative to a T-shaped platform, as adding a single perpendicular extension increases fishing capacity without the additional material and construction costs associated with a full T-head structure.

In Western Australia, L-shaped platforms are generally observed in smaller-scale projects and are commonly constructed in both marine and estuarine environments. They are particularly suited to locations were extending further into the water does not provide additional benefits, making them an efficient and practical option for compact fishing platforms.

8.4 Accessible Design

Ensuring maximum accessibility should be a fundamental objective in the development of new fishing platforms. Given the significant recreational and social benefits that an all-abilities fishing platform can provide, every effort must be made to accommodate individuals with accessibility requirements.

Several key factors influence the overall accessibility of a fishing platform, including:

- Access pathways and ramps
- Decking construction and condition
- Kerbing and guardrails/handrails
- Proximity to accessible amenities, such as:
    - Parking
    - Toilets
- Seating and shelter
- Platform width

Developing a fit-for-purpose platform that meets the needs of diverse user groups requires careful integration of multiple accessibility-related features.

6.4.1 Accessibility Standards and Fishability Assessments

Fishability, an organisation advocating for accessible fishing in Western Australia, evaluates fishing locations and platforms based on established accessibility criteria. Their online resource provides a map marking various fishing locations using:

- Green pins – Locations that meet all accessibility requirements
- Blue pins – Locations that lack one or more required accessibility features

The criteria used by Fishability to assess accessible fishing locations include:

- Wheelchair-accessible paths and ramps
- Fully accessible bathroom facilities
- ACROD parking within a reasonable distance
- A stable and well-maintained fishing surface

As the leading advocate for accessible fishing, Fishability's guidelines should be considered in the design and planning of all new fishing platforms. These accessibility principles ensure that fishing remains safe, inclusive, and enjoyable for all users.

6.4.2 Accessibility and Fishing Functionality

Fishability highlights the importance of developing platforms and facilities that are 'fit for purpose'. In some cases, fishing platforms offer great fishing amenity, i.e. the fishing is of a high quality, due to its placement and location, but cannot fulfil all the aforementioned criteria for being fully accessible. In cases such as these, where it is assessed to not be possible to make a fully accessible facility, designing a platform that still offers the best fishing amenity to those with accessibility requirements should be prioritised. The way to best do this is to consider the following aspects:

Kerbing

- Provides essential safety for individuals using wheelchairs.
- Recommended by Fishability for all accessible fishing platforms.

Handrails/Guardrails

- While common on jetties, standard-height handrails can hinder the fishing experience for people using mobility aids or wheelchairs.
- Fishability recommends kerbing instead of handrails to improve accessibility.
- Where handrails are required, incorporating set-downs or lower railing sections, as seen on Esperance Jetty, improves usability.
    - The Esperance Jetty case study (Appendix A) highlights that users appreciate these lower sections, as they provide safety for children while not obstructing casting and retrieving.

Platform Height & Distance from Water

- Platforms should be as close to the water level as possible, with consideration for tidal changes and swell conditions.
- A platform closer to the water reduces the need for long casting distances and simplifies line retrieval and landing fish.
- Platforms extending from breakwaters or steep banks should be designed to minimise snagging risks from underwater obstacles.

Seating and Shelter

- Providing seating and shade improves comfort and accessibility, particularly for older adults and individuals with mobility limitations.

Recent concept designs for Bunbury's new fishing platform (January 2025) demonstrate how a fit-for-purpose accessible platform can be designed. Key features include:

- No handrails
- Adequate kerbing for safety
- Seating and shade for user comfort

Similarly, Esperance Jetty is an exemplary case of an accessible platform that maintains strong fishing functionality while complying with relevant regulations. Its design was developed in alignment with the Shire of Esperance, the Department of Transport, state legislation, and the Heritage Council of Western Australia.

Figure 9. The Bunbury Fishing Platform Concept provides a great example of how accessible design elements are being implemented on new developments in Western Australia. Source: South West Development Commission

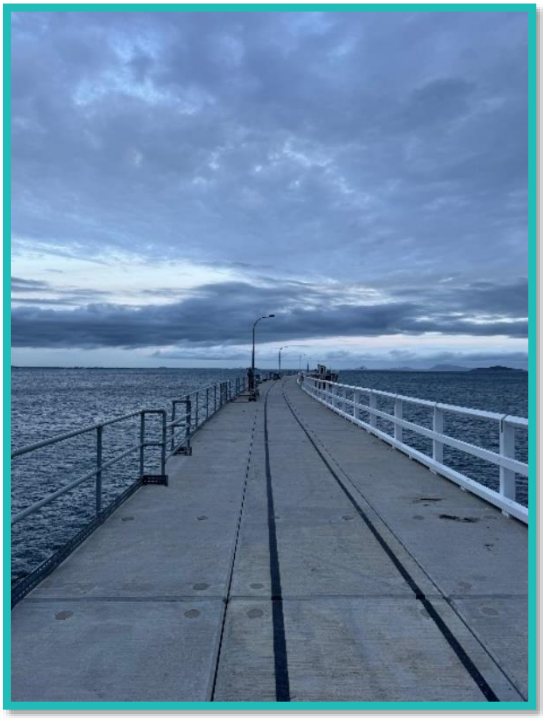

Figure 10. The Esperance Jetty, provides an example of how low points in handrailing can be used to make fishing platforms safe while catering for fishers with accessibility requirements

8.5 Materials

The selection of materials for the construction of a fishing platform or jetty is influenced by several factors, including cost, environmental conditions, primary usage, and structural requirements. The most commonly used materials in modern and reconstructed platforms include:

- Wood
    - Pressure treated wood
- Steel
- Concrete
- Aluminium (handrailing, and other non-structural elements)
- Fibreglass-Reinforced Plastic (FRP)

In most cases, a combination of these materials is used to achieve optimal durability, cost-effectiveness, and maintenance efficiency.

6.5.1 Piles

Consultation with engineering providers highlights standard practices for high-quality platform construction. Historically, wooden piles were commonly used, but their susceptibility to rot, marine borer damage, and degradation has led to frequent restoration, demolition, or complete reconstruction of older jetties.

In modern developments, steel or concrete piles encased in High-Density Polyethylene (HDPE) sleeves are the preferred option due to their superior durability and resistance to environmental conditions. HDPE-sleeved steel piles offer significantly increased longevity, mitigating the deterioration issues commonly observed in older timber platforms.

To ensure a minimum lifespan of 50 years, it is highly recommended to use HDPE-sleeved steel piles or an equivalent high-quality alternative. While timber piles are generally not suitable for long-term marine applications, they may remain a cost-effective solution in low-energy environments, such as freshwater rivers and some estuarine areas where exposure to harsh marine conditions is limited.

6.5.2 Decking

The choice of decking material directly affects durability, maintenance requirements, and long-term costs. The most commonly used materials for fishing platform decking include:

- **Concrete** – Highly durable, low maintenance, but heavy and may have higher initial construction costs.

- **Fibreglass** – Plastic (FRP) – Ideal for platforms that may be submerged during high tide and swell events. FRP is perforated, allowing water flow, reducing wave impact, and minimising environmental footprint.
- **Wood-Fibre Composite** – A cost-effective option made from recycled wood fibres and plastic, suited for smaller-scale platforms in temperate and estuarine environments.
- **High-Density Polyethylene (HDPE) or Plastic** – Lightweight and highly durable, commonly used for floating platforms.
- **Timber** – Increasingly rare in modern developments due to higher maintenance needs and shorter lifespan.

While timber decking was historically widespread, modern developments have transitioned to concrete, FRP, and composite materials due to lower maintenance costs and enhanced durability.

6.5.3 Material Selection Considerations

In general, the materials that are selected on the platform will influence the maintenance costs,

- Concrete platforms may have higher upfront costs but require less maintenance over time, making them cost-effective in the long run.
- Timber or plastic decking has lower initial costs but may require more frequent maintenance and replacement, potentially leading to higher long-term costs.
- Floating platforms typically use HDPE or other lightweight, durable plastics, though timber or composite decking may be an option, depending on design specifications provided by the contractor.

To ensure an informed decision, it is recommended to consult with an engineering provider early in the planning process to obtain cost estimates and material recommendations. Research for this guide indicates that most modern platforms are constructed using steel and concrete, with a clear industry trend moving away from timber to achieve a 50-year minimum lifespan for new developments.

8.6 Environmental Factors

The environmental conditions at a platform location impact design, construction methods, materials, and maintenance requirements. Key environmental factors include:

6.*6.1 Swell*

- High swell areas require reinforced construction, increasing project costs due to the need for stronger materials and structural reinforcements.
- Fixed platforms can be engineered to withstand varied swell patterns, while floating platforms are generally unsuitable in locations where swell exceeds 2.5 metres.
- Coastal areas with longer wave periods (long intervals between wave crests) are better suited to fixed platforms, whereas floating platforms perform better in environments that have shorter wave periods such as rivers and estuaries.
- In moderate-swell locations, concrete floating platforms are often used due to their greater mass and stability.

6.6.2 Tide

- Tidal fluctuations affect pile length and determine the choice between fixed and floating platforms.
- The minimum pile length for a platform is based upon a one in 100-year tidal event.
- Fixed platforms situated in areas with a high tidal range (4 metres +) will require long piles to be used and will be situated high above the water.
- To enhance fishing accessibility during low tide, fixed platforms should include lower-level sections.
- Floating platforms remain accessible throughout tidal cycles but require longer gangways for access.
    - Gangways must comply with accessibility standards, ensuring a maximum slope of 1:14 (one metre rise requires at least 14 metres of horizontal length).

6.6.2 Seabed Conditions

Piling and construction techniques may be altered by the seabed conditions at the location of the proposed fishing platform.

- Hard substrates (e.g., limestone) require drilled piles but provide greater stability at shorter lengths, potentially reducing material costs.
- Soft substrates (e.g., mud, sand) require deep pile penetration, increasing material and labour costs.

6.6.3 Depth

- Fixed platforms can be built in any depth, but deep-water construction requires longer and wider piles, increasing material costs.
- Floating platforms are unsuitable in water depths under two metres, as they may sit on the seabed, causing structural damage.
- Shallow water can make construction difficult, requiring land-based cranes instead of barges, impacting cost and logistics.

6.6.4 Material Choices & Environmental Suitability

- HDPE-sleeved steel piles are recommended for marine environments to extend lifespan.
- Concrete and FRP decking offer long-term durability and reduced maintenance costs.
- Floating platforms are ideal for low-energy environments (rivers, estuaries), while fixed platforms suit high-energy coastal areas.
- Seabed conditions influence piling techniques and costs, with hard substrates reducing material needs and soft substrates requiring deeper piles.
- Gangway length is a critical factor for floating platforms in high tidal range areas to ensure safe, accessible entry points.

8.7 Maintenance

Ensuring the ongoing maintenance of a fishing platform is critical to maximising its lifespan, safety, and usability. Without proper maintenance, platforms deteriorate beyond repair, ultimately leading to closures or demolitions. Western Australia has lost several fishing platforms and jetties due to lack of maintenance such as the original Esperance Tanker Jetty, and the Turner Street Jetty in Augusta, both of which were forced to close after deterioration rendered them unsafe.

To prevent future losses, it is essential to implement a structured long-term facility management plan in collaboration with engineering consultants and construction firms. The license holder of the platform should set aside dedicated maintenance funds to ensure that the platform remains safe and functional for the entirety of its intended lifespan and beyond.

6.7.1 Maintenance Considerations & Influencing Factors

The level of maintenance required, and the associated costs can vary depending on:

- **Design and construction** – Larger, more complex platforms will generally require high levels of maintenance.

- **Environmental conditions** – Locations exposed to intense swell, storms, high winds, or saltwater corrosion will require more frequent maintenance and site assessments.
- **Material choices** – Platforms constructed with steel, concrete, and HDPE-sleeved piles tend to have lower long-term maintenance costs compared to traditional timber structures.

6.7.2 Recommended Maintenance & Inspection Schedule

To maintain the structural integrity and safety of the platform, a regular inspection and maintenance schedule should be established:

Site Assessments:

- Conducted every six months to monitor general wear and tear.
- Additional assessments after severe weather events (e.g., storms, cyclones).
- Conducting assessments as often as possible on top of regular visits to mitigate any ongoing issues the fishing platform may be facing, such as lack of cleaning, damage from activities on the platform or any additional damage that may occur within the standard six-month interval.

Structural Assessments:

- Comprehensive engineering inspections every five years to evaluate the platform's integrity and durability.
- Early identification of corrosion, material degradation, or structural vulnerabilities.
- Commissioning structural assessments more often than every 5 years can be beneficial. Some parties responsible for fishing platforms organise to conduct assessments every two years.

By establishing a proactive maintenance plan, fishing platforms can remain functional, safe, and accessible for generations of recreational fishers while avoiding the costly consequences of neglect and demolition.

9. Further Processes

As fishing platform developments progress there will generally be a requirement to conduct assessments, gain official quotes for the construction and then to apply to the relevant body for a license. The following section outlines the common processes.

9.1 Environmental Assessments

Environmental assessments are conducted to measure the potential impacts of a fishing platforms construction and to minimise any potential adverse effects on the environment. Installation of piles into the seabed, movement of machinery and boats, and construction of the platform as a whole can impact the environment in the area. Fishing platforms also have positive impacts upon the environment in which they are built. Once constructed, they provide additional structure for fish to aggregate around, while also supporting the growth of other flora and fauna. In addition, trials are currently underway exploring how fishing platforms can be augmented with artificial reef modules to further enhance habitat values and fishing opportunities. A recent example of this approach can be seen in Port Hedland, where a land-based fishing platform has been augmented with reef balls to benefit fish availability at the site. Environmental assessments can be conducted independently, through environmental consultants and can be facilitated by the Environmental Protection Authority (EPA) and generally consider the following:

- Impacts on habitat
- Impacts on benthic communities
- Marine environment quality
- Marine fauna in the area
- Marina flora in the area

9.2 Licensing and Approvals

For construction of a fishing platform to go ahead, it must be approved by the relevant decision maker, primarily a department of the state government. As an example, in most cases the Department of Transport provides licenses for fishing platforms and jetties in Western Australia. The entity that aims to hold the licence and subsequent responsibilities related to the fishing platform or jetty submits a licence application through the local Department of Transportation. The application usually includes the official designs of the platform and all research regarding the project so far, along with the completed licence application form. In Western Australia, here are three options for licenses, which are for private, commercial, or community jetties. Most fishing platforms or mixed-use recreational platforms will suit a community jetty licence as

they are generally owned by a local government authority, such as a local shire, and used for recreation by the public.

To seek a license and/or approval for fishing platform development outside of Western Australia, the suggested regulators/department are as follows:

- NSW: Transport for NSW
- VIC: Department of Energy, Environment and Climate Action
- QLD: Department of Resources & Maritime Safety Queensland
- SA: Department for Infrastructure and Transport
- TAS: Marine and Safety Tasmania
- NT: Department if Infrastructure, Planning and Logistics
- ACT: ACT Government - Environment, Planning and Sustainable Development Directorate

There will be other stakeholders involved in the approval of a fishing platform project. These would have been uncovered during the preliminary investigations and official feasibility studies. It is important to be aware of these stakeholders and to gain the required approval from them, inline with the processes that are in place. If the fishing platform is in an area vested to a port authority for example, that entity will have their own set of regulations to follow and assessments to conduct before approval for the fishing platform is provided. Similarly, the Department of Biodiversity, Conservation and Attractions (DBCA) in Western Australia (and their interstate equivalent) may have authority over the approval of some fishing platforms. Particularly those in areas that are under some form of protection or in areas of environmental significance.

10. Further Reading

Throughout the investigations undertaken that have guided how this document was developed other pieces of work completed in the past have been identified to be of significant use in the space of fishing platform development. Please see a list of further reading below:

The Value of South Australia's Jetties:

- A project commissioned by the Local Government Association of South Australia to investigate the importance of recreational jetties in South Australia. It is used to provide information to support the Local Government Association's advocacy position on jetties in the state.
- https://www.lga.sa.gov.au/__data/assets/pdf_file/0032/1537655/The-Value-of-South-Australias-Jetties-Final-Report-Full.pdf

Accessible Fishing Platforms – A summary of design principles and guidelines for accessible recreational fishing platforms:

- The New South Wales Department of Industry developed a summary of design principles and guidelines for accessible recreational fishing platforms as part of an initiative to promote inclusive recreational fishing. A large-scale report that takes into account a range of factors relating to accessible fishing platform design practices, it is a resource that will aid in the development of future fishing platform projects across Australia.
- https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0004/737257/Accessible-fishing-platform-guidelines.pdf

Geraldton Business Case – Options Analysis:

- A business case study commissioned by the City of Greater Geraldton that was completed by Remplan that will be used to guide the City of Greater Geraldton in their decision-making process relating to the construction of a new jetty in the city. It is a great example of what a business case study may look like, and also reflects what a large-scale feasibility study would include.

https://www.cgg.wa.gov.au/council-meetings/ordinary-council-meeting/26-november-2024-ordinary-meeting-of-council/220/documents/5-is317-attachment-geraldton-jetty-business-case-options-analysis.pdf

11. Conclusion

This guide has outlined common processes that fishing platform projects navigate to uncover funding opportunities, stakeholder support, decision-makers' approval, and installation. The importance of developing a sound narrative through research that investigates the benefits of fishing platforms and the fishing amenity they provide to their users is highlighted within the guide. The considerations that should be made when conducting effective preliminary research are outlined so that future fishing platform project proponents will be better equipped to develop their case for the platform.

Understanding processes involved in a fishing platform development will allow the community to know what is required when advocating for and requesting new infrastructure be built. The way that factors such as budget, the environment, and legislated processes such as licensing influence a project has been outlined within the guide, as well as the recommended best practices for the design of fishing platforms.

This information should be used to guide proponents and advocates in their efforts to ensure new fishing platforms and other related infrastructure are designed to offer greater fishing amenity and are accessible to fishers who are old or young, or those with disabilities.

The authors' hope that readers use this guide to successfully plan, advocate, and install a jetty or platform that provides access to high-quality fishing experiences.

12. References

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McLeod, P., and Lindner, R. 2018. Economic Dimension of Recreational Fishing in Western Australia. Research Report for the Recreational Fishing Initiatives Fund. 83 pp.

13. Appendix A

See separate document entitled "Esperance Jetty Case Study – Appendix A"

14. Appendix B

A table outlining the potentially relevant stakeholders to fishing platform projects in each state and territory of Australia:

Stakeholder Category:	**Responsibility:**	**Examples:**
Recreational Fishing Advocacy	Advocacy and support for recreational fishing infrastructure.	VRFish (VIC), NSW Recreational Fishing Alliance (NSW), Sunfish Queensland (QLD), Recfish SA (SA), TarFish (TAS), Amateur Fishermen's Association of the NT (NT)
Accessibility Advocacy	Ensuring accessibility for fishers with disabilities.	Fishability (WA)
Maritime/Transport Regulator	Regulatory oversight for maritime infrastructure.	Marine Safety Victoria (VIC), Transport for NSW (NSW), Maritime Safety Queensland
Local Government	Responsible for planning approvals, community consultation, and funding opportunities.	Dependent upon the location the fishing platform is planned to be constructed
Land & Property	Provides online mapping tools to identify land ownership; certificates of title can be purchased for verification.	Land Use Victoria (VIC), NSW Land Registry Services/ Spatial Services (NSW), Titles

Stakeholder Category:	Responsibility:	Examples:
		Queensland (QLD), Land Services SA (SA), Land Tasmania (TAS), NT Land Information (NT), ACT Planning and Land Authority (ACT)
Port Authority	Some proposed sites may fall under port jurisdiction, particularly breakwaters that are already used informally for fishing.	If the proposed platform is within port waters, investigate who the port authority is for the area.
Development Commissions/Organisations	Tracks and controls large-scale developments that may present co-investment or integration opportunities for fishing platforms.	Development Victoria (VIC), Infrastructure NSW (NSW), Economic Development Queensland (QLD), Renewal SA (SA), Department of State Growth (TAS), Department of Infrastructure, Planning and Logistics (NT),
Environmental Authority	Oversee environmental approvals and marine impact assessments.	Department of Energy, Environment and Climate Action (VIC), NSW Department of Climate Change, Energy, the Environment and Water (NSW), Department of Environment and Science (QLD), Environment Protection Authority SA (SA), Department of Natural Resources and Environment Tasmania (TAS), Department of Environment, Parks and Water Security (NT), Environment, Planning and Sustainable

Stakeholder Category:	Responsibility:	Examples:
		Development Directorate (ACT)

15. Appendix C

See separate document entitled "Catalogue of Fishing Platforms in Western Australia – Appendix C"