



Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
		Likelihood (before mitigation)	Consequence	Significance before mitigation				
RISKS								
Section 5: Values and uses of Darwin Harbour (ecological, social, economic, cultural)								
R-1 Disturbance to strongly held social, economic, cultural and environmental values and use of Darwin Harbour	Clearing, dredging, start of construction, shipping, restricted access	Likely	Major	High	Some disturbance of strongly held values is likely. In terms of consequence, the extent, duration and scale of change will be significant as the precinct evolves. The sensitivity and resilience to this change is likely to be mixed. The values mapping survey suggests disturbance will be felt most strongly by long-term Territorians for whom varied uses of the harbour are intrinsic to the Greater Darwin lifestyle. For some, change would be absorbed over time or is seen as the price of progress. However two decades of opposition to development around the harbour would suggest that, for many, the cumulative scale of change will remain disturbing. While the immediate impact may be localised to Middle Arm and it could be argued that parts of Darwin Harbour are not pristine, the strength of feedback in the values mapping survey suggest this is not the perception of many respondents.	<ul style="list-style-type: none"> Reduce the scale of the project to more closely align with the values of existing Darwin residents. Accommodate community concerns in the selection of industries and design. 	Medium	<ul style="list-style-type: none"> Recreational fishing industry Environmentalists Tourism industry Larrakia people Darwin residents generally
R-2 Reduced ability to enjoy highly valued recreational fishing in Darwin Harbour	Reduced access from dredging, shipping, berthing, exclusion zones, population	Likely	Major	Very High	Reduced access along the Elizabeth River and to popular crabbing creeks will come as a blow to recreational fishers, particularly Palmerston and rural residents. Elizabeth River is only 9 km from Palmerston. It is the only all-weather, all-tide boat ramp with ample	<ul style="list-style-type: none"> Reduced access to Elizabeth River and popular crabbing creeks is difficult to mitigate, hence the residual rating. An alternative would be offsets, however AFANT does not believe social and ecological offsets in the harbour are possible. While new boat ramps could be 	Very High	<ul style="list-style-type: none"> AFANT Recreational fishers, particularly individuals who fish or visit the Elizabeth River side of Middle Arm Peninsula

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	growth and over-fishing				<p>parking and land-based fishing options. Access and water quality will be impacted by dredging and construction of marine facilities, then by increased marine traffic and ships berthing in the constrained space at the mouth of the Elizabeth River. AFANT is concerned that the ecological and social impacts are 'extreme', unacceptable and could not be offset within Darwin Harbour. Loss of fishing spots could be compounded by population growth, including construction workers, leading to over-fishing in the harbour.</p> <p>Based on the scope of development covered by the SEA, substantial and long-lasting impacts on fishing are predicted for a large number of fishers, which would disturb deeply held values and likely fuel vocal opposition to the precinct.</p>	<p>built, e.g. on the Howard River in Shoal Bay, this would mainly benefit rural residents and does not address the issue of convenient access for the large population of Palmerston.</p> <ul style="list-style-type: none"> The dredge disposal grounds could be combined with new artificial reefs to create new fishing spots in the harbour. AFANT should be closely involved in exploring all options. 		<ul style="list-style-type: none"> Fisheries (DITT) Palmerston Council
R-3 Damage to Darwin's tourism branding and quality of life as a tropical, harbour city	Changes to land and seascapes, industrial activity	Possible	Moderate		<p>Evolution of the Middle Arm Precinct and changes to the land and seascape would affect the sense of arrival by air and rail. Tourism operators would be concerned if the values and uses of Darwin Harbour are incrementally displaced by industrial landscapes and industrial shipping. The extent and scale of change would be more localised and less jarring perhaps for people from other cities where industrial use of harbours is part of a way of life. However, concerns at the additive impacts of industrialisation at East Arm</p>	<ul style="list-style-type: none"> A reduced scale of development means impacts would be mostly localised to Middle Arm. Although shipping volumes will increase, the gradual nature of this may be absorbed. 	Low	<ul style="list-style-type: none"> Tourism industry Tourists Darwin residents broadly

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					and elsewhere in the harbour will heighten the sensitivity.			
Section 6: People and communities (impacts on social fabric, health, wellbeing and safety, vulnerable community segments)								
R-4 Increased road trauma or reduced feelings of safety on transport routes	Start of construction and project activity for each project; increased industrial traffic	Possible	Moderate	High	Increased traffic volumes are likely to be gradual as common user infrastructure and projects evolve. Projects at Middle Arm will result in construction traffic, operational vehicles, transport of materials and commuting workers. Higher volumes of industrial traffic passing by residential areas and schools, such as Eirundie Avenue, increases the risk of head on crashes or the deaths and injuries of pedestrians. The consequences would be catastrophic, hence the high untreated rating. The risk would reduce to low with proposed solutions such as the Weddell Freeway, which would take heavy vehicles off Eirundie Avenue, and duplication of Channel Island Road.	<ul style="list-style-type: none"> Improvements and adequate transport planning to cater for increased industrial and commuter traffic. Construction of the first stage of the Weddell Freeway, Berrimah Road overpass of Tiger Brennan Drive, grade separated road/rail crossings, emerging and turn-off lanes, duplication of Channel Island road and appropriate traffic management plans. Other mitigation measures include reducing industrial traffic at peak hours and bussing of workers to site from 'park and ride' sites to reduce commuter vehicles. 	Low	<ul style="list-style-type: none"> Northern Territory Government Transport Planning Planning Commission Local Members of Parliament Other road users – community Residential areas Road Transport Association of the NT Palmerston and Litchfield Councils Extractive Industries Association
R-5 Reduced marine safety in the harbour due to dredging and increased marine traffic	Dredging, start of construction and project activity for each project; Traffic will increase as each	Possible	Moderate	High	Increased marine traffic and construction activity due to projects at Middle Arm – dredging, supply vessels, and export vessels – could reduce safety in the harbour and increase marine accidents, particularly given the size of ships likely to visit Darwin and the popularity of	<ul style="list-style-type: none"> Planning to cater for increased shipping/marine traffic in the harbour. Adequate safety measures to protect all harbour users – safety exclusion zones, speed restrictions, notice to mariners, lighting, anti-collision radars. Navigation safety campaign (similar to INPEX). 	Medium	<ul style="list-style-type: none"> Darwin Port – Harbour Master NTG – Marine Safety AFANT Harbour-related businesses Other users of Darwin Harbour

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	project is developed				shipping channels for fishing and recreational traffic, including sailing. The area between East Arm and Middle Arm, popular with recreational fishers, will become particularly congested. The scale of change, extent and duration are significant and will be compounded by industrial growth at East Arm (including the Port, Ship Lift Facility and Marine Industry Park), other projects on the Middle Arm Peninsula and Sun Cable's land-sea converter station at Gunn Point. By 2040, an extra 860 ships using the MASDP terminal will compound other increases from East Arm and INPEX's Bladin Point facility.	<ul style="list-style-type: none"> Licensing and alcohol restrictions are mitigation measures, but are likely to be opposed by recreational fishers. 		
R-6 Reduced community cohesion, social capital and wellbeing	Mobilisation of construction workforces; influx of workers; changed demographic composition of Greater Darwin	Possible	Minor	Medium	Community cohesion and wellbeing can be eroded by a sudden influx of newcomers, typical of the 'boom' phase of economic growth. Large cohorts of FIFO workers with high disposable incomes can lead to anti-social behaviour and reduced wellbeing. More permanent demographic change can change the character and prevailing values of a neighbourhood. It is likely that population growth will occur in Palmerston suburbs, which are already characterised by young, mobile families, including Defence. Land use planning and the release of new residential blocks should see newcomers absorbed, particularly if development is sequenced to maximise social as well as economic outcomes.	<ul style="list-style-type: none"> Staged development of projects to minimise multiple large influxes of temporary workers and draw on people already living in the community. Project proponents provide incentives for relocation rather than FIFO, so workers and their families become part of and contribute to the community. Large FIFO workforces accommodated in a dedicated workers' village to reduce impacts on community cohesion, perhaps at Weddell. 	Low	<ul style="list-style-type: none"> Local residents/ community City of Palmerston City of Darwin Litchfield Council

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R-7 Reduced sense of place	Dredging, start of construction, development of the precinct; Industrialisation of the harbour; Changes to demographic composition and character of rural living	Possible	Minor	Medium	Concerns about industrialisation of the harbour have been expressed in consultation for projects over the past 20 years and are an inevitable consequence of economic growth. Even stakeholders who support economic growth rued this likely impact on the quality of life of Greater Darwin, given that the harbour is integral to residents' sense of place and the region's image. Sense of place can also be affected by sudden changes to the living environment, such as land clearing and denser development of rural areas. Larrakia people may feel their attachment to land and seas is weakened by development (see Section 9). The duration is permanent and the scale of change incremental but substantial. The extent and sensitivity, however, will vary amongst population segments and is likely to be strongest among longer-term residents (as shown by response rates to surveys).	<ul style="list-style-type: none"> A changed sense of place to residential areas should be partly mitigated by land use planning, particularly if many newcomers are accommodated in the new town of Weddell. Inclusive decision-making will help ensure sensitivities are taken account of and the scale of and type of development aligns with community values. 	Low	<ul style="list-style-type: none"> Longer-term residents in particular Larrakia people Environmental and community groups All users of the harbour
R-8 Reduced health and safety due to emissions, pollution, discharges	Emission of pollutants into the air and sea; Fears of toxicity, and impacts on human health	Likely	Moderate	High	The impact of industrial activities on health and mental health can include psychosocial impacts, or fears and anxieties invoked by announcements of particular industries. These fears may be heightened by people's actual or vicarious experience of harms caused by other projects (such as spills at East Arm, pollution from mining projects, or case studies in environmental campaigns). Environmental groups are campaigning against the development and pointing to	<ul style="list-style-type: none"> Selection of industries that are a strategic fit with the intent of the precinct. Good public health studies and transparent monitoring and risk communication. (to come from health impact assessment) 	Medium	<ul style="list-style-type: none"> Environmental and community groups Department of Health Palmerston Council Public health groups and researchers General public

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					risks, such as pollution and toxicity in air emissions or discharges to the harbour. The sensitivity to these risks is heightened because of Middle Arm's proximity to the key population centre of Palmerston. Larrakia people and fishers were concerned about contaminants getting into the food chain. Other health and safety risks include chronic diseases, population health, environmental health (such as biting insects) and occupational health (the physical and mental wellbeing of workers).			
Section 7: Social infrastructure and services (housing, schools, transport, emergency services, health, utilities, community centres)								
R-9 Saturation of short-term accommodation in Greater Darwin to house FIFO workers	Project announcements; mobilisation of workforces, contractors and project management teams; multiple concurrent projects, requiring workers	Likely	Mod	High	<p>Many workers are likely to be drawn from Palmerston and surrounding growth areas.</p> <p>It is a government objective to minimise FIFO workforces, grow the Territory's population and draw from residential workforces. However, given the relatively small population base and skills shortages, a reliance on FIFO workers is likely, particularly at peak construction or shut down periods.</p> <p>Many survey respondents and interviewees referred to the inflationary and scarcity pressures created by construction of existing LNG plants on Middle Arm.</p> <p>While pressures for individual projects might be short-term, this of itself is a disruption that would be hard to absorb.</p>	<ul style="list-style-type: none"> Worker accommodation plan that considers the collective needs of FIFO workforces for all major projects in the Greater Darwin region. This could include repurposing existing facilities or a dedicated facility at Weddell that can be remediated or repurposed as Weddell grows. 	Medium	<ul style="list-style-type: none"> Northern Territory Government Tourism and hospitality industry Industry and employers Greater Darwin residents Local Government

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R-10 Pressure on the affordability and quality of housing in the region due to sudden population growth	Start of construction and operations attracts workers and families to relocate to Greater Darwin; Population growth; Skilled migration	Possible	Moderate	High	The extent, scale and duration of change will depend on the sequencing of projects, planning lead times and labour markets. Projects that require large operational workforces, or concurrent projects, will increase demand for housing and long-term rentals. Scarcity and unaffordable housing and accommodation are constraints to the NT's economic development. However, building in advance of demand can create a glut and economic losses for developers and home owners. Given the size of Greater Darwin market, it is particularly susceptible to short-term shocks, however current land use and infrastructure planning have factored in various scenarios of growth and any strains should be short-term.	<ul style="list-style-type: none"> Staged development of projects. Collaborative employment plans. Government and private investment in housing Tracking the source of workers and where they live. Government land release, headworks and commercial opportunities to cater for growth. Private sector investment in additional housing options. 	Medium	<ul style="list-style-type: none"> Planning Commission Infrastructure NT NTG Local Government Construction and real estate industries Employers Residents
R-11 Population loss due to increased housing and living costs	Project announcements, cumulative pressures on supply chain, labour market and housing; mobilisation for subsequent projects	Possible	Minor	Medium	The cost of living is a key element of the liveability of a place, which in turn influences the willingness of people to relocate to and stay in a region. Many regional areas, including Darwin, are already facing pressure on supply chains and higher living costs. This can have a ripple effect on social and key worker housing. Any impacts should be temporary as the market responds. Industrial development is likely to increase heavy vehicles on approaches to the precinct, including Elrundie Avenue, Jenkins Road, Channel Island Road and	<ul style="list-style-type: none"> Staged development of projects. Local employment plans. Land use and infrastructure planning that incorporates needs analysis for social infrastructure. 	Low	<ul style="list-style-type: none"> Northern Territory Government Planning Commission Investment NT City of Palmerston City of Darwin Litchfield Council Local residents
R-12: Pressure on transport infrastructure	Start of construction, increased industrial traffic	Likely	Major	High	Industrial development is likely to increase heavy vehicles on approaches to the precinct, including Elrundie Avenue, Jenkins Road, Channel Island Road and	<ul style="list-style-type: none"> Transport planning matched by appropriate budgeting ahead of increased traffic. 	Low	<ul style="list-style-type: none"> Transport Planning Infrastructure NT Palmerston Council Litchfield Council

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					<p>the Arnhem Highway, creating pressure to fast-track new and upgraded roads, such as the duplication of Channel Island Road and the Weddell Freeway to take heavy vehicles off Elrundie Avenue and Jenkins Roads.</p> <p>The Road Transport Association and Palmerston residents are already experiencing the consequences of heavy vehicles using Elrundie Avenue, while road transport operators experience higher costs and lost productivity from repeated stops at signalised intersections.</p> <p>The scale, extent and duration of increased demand will be high. While this might be alleviated by incremental growth, construction pressures are likely to see periods of peak demand (as experienced by INPEX) and create budgetary pressures to fast-track planned infrastructure.</p>	<ul style="list-style-type: none"> • Precinct design to accommodate road transport needs. • Undergrounding powerlines to avoid delays to over-size over-mass transport. 		<ul style="list-style-type: none"> • Palmerston residents • Road Transport Association of the NT • Extractive Industries Association
R-13 Reduced access and quality of other social infrastructure and services due to sudden population growth	In-migration of workers or people seeking work; Accommodation of workers and their families	Possible	Moderate		<p>Concurrent projects could lead to sudden population increases, putting pressure on social infrastructure such as education, health, community facilities and childcare.</p> <p>Land use planning and needs analysis are designed to predict and prepare for projected population growth.</p> <p>While thresholds can be set for increased demand, this impact requires long-range planning and may be affected by market forces and unexpected concurrent projects.</p>	<ul style="list-style-type: none"> • A pace of development that allows population growth to be planned for and absorbed. • Good sharing of data ahead of projects to inform good planning. • Continued land use and infrastructure planning. The NT Infrastructure Plan and Pipeline adopts an 'infrastructure ecosystem' approach that includes social infrastructure to support growth. • Skills development and key worker housing to provide staffing to deliver services. 	Medium	<ul style="list-style-type: none"> • Planning Commission • Infrastructure NT • City of Palmerston • City of Darwin • Litchfield Council • Workers and other residents

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R-14 Pressure on water supply leads to scarcity and constrains residential and industrial growth	Projects start operating before water solutions are in place, eg AROWS and Manton Dam return to service	Possible	Extreme	Very high	<p>A key risk could be finding to staff to provide the services, particularly if inflationary pressures affect key workers.</p> <p>Availability of a suitable water supply has been identified as both a key enabler for development at Middle Arm as well as a constraining factor if there are delays in augmenting water supplies.</p> <p>This issue is a priority for both the Australian Government and the NT's strategic water planning. Infrastructure Australia's Infrastructure Plan 2021 includes prioritising water safety and security as a key area for consideration for major infrastructure projects in Australia.</p> <p>Delays in boosting the Darwin Region's water supply could lead to water restrictions, constraints on population growth, limits to industrial growth and investor uncertainty.</p> <p>A high rating is assigned due to uncertainty about timing of the AROWS project, which is still subject to an EIS, uncertainty about the location and implications of desalination plants and feasibility of waste water treatment options which are not covered in this analysis.</p>	<ul style="list-style-type: none"> Sequencing of projects at Middle Arm dependent on water availability, starting with Manton Dam return to service. Efficient water use and recycling and industrial use of waste water. Implementation of water supply options within the timeframes required for Middle Arm development. Darwin Region Water Supply Strategy. An environmental impact study for the AROWS project is due to start in 2023. 	High	<ul style="list-style-type: none"> Power and Water Northern Territory Government Infrastructure NT Invest NT Infrastructure Australia Environmental and community groups All residential and industrial water users Project proponents
R-15 Reduced resilience and capacity of Greater Darwin's industrial and	Increased demand puts pressure on stability and capability of the Darwin-	Likely	Major	Very high	<p>Threats to the reliability of the electricity grid could compound existing issues with ageing infrastructure and shortfalls in supply from Blacktip.</p> <p>Increased pressure on an already challenged system increase the risk of a</p>	<ul style="list-style-type: none"> A stand-alone, common-user renewable energy grid which does not depend on or impact the Darwin-Katherine Energy System. All energy infrastructure supplying the precinct or Middle Arm more broadly to 	Medium	<ul style="list-style-type: none"> Power and Water Corporation Jacana Territory Generation Invest NT Infrastructure NT

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residential energy supplies	Katherine electricity system				'system black' which could delay integration of renewables into the grid. As with water, a mismatch in timelines between energy demand and supply could strain the Greater Darwin region's energy reliability and security and dent investor confidence. The NTIPP (2022) notes the need to reduce the use of gas generators, to upgrade secondary energy storage systems (p.114) and to establish a Weddell renewable energy hub within the next 5-10 years at a cost of \$10M (p.150).	<p>be independent of Power and Water infrastructure, but with the capacity to connect to the grid once policy and technical issues are resolved in the future.</p> <ul style="list-style-type: none"> Advice from the MASDP team is the precinct will have a stand-alone, common user energy grid which could accommodate a range of renewable energy sources. Projects would not be able to proceed until this stand-alone grid is in place, so there should be no impact on Darwin's residential or industrial power supplies. The grid could connect to the Darwin-Katherine Electricity System at a later stage, providing benefits to Darwin (see opportunity O3 below). 		<ul style="list-style-type: none"> Planning Commission Industrial and residential customers.
R-16 Pressure on emergency services' capacity to respond to incidents at Middle Arm	Industrial growth at Middle Arm, including an expand industrial risks	Likely	Major	Very high	<p>Darwin's emergency services are already under strain. Middle Arm is too far from Berrimah and Palmerston Fire Stations to allow for the required 8-minute response time and the Fire and Rescue Service lacks the specialist equipment and training to respond to an emergency incident. Marine or shipboard firefighting capacity is also limited. A major incident would exceed the capacity of emergency response teams. While the likelihood may be low, making it hard to justify costly increases in capacity, the consequences would be catastrophic.</p>	<p>This risk can be partially mitigated by having highly trained emergency response teams and equipment at individual project sites. However, ERTs are generally equipped to provide an immediate response until NTFRS resources arrive.</p> <ul style="list-style-type: none"> The proposed Weddell/Middle Arm sub-regional plan could include an options study for a new fire station to ensure a site is quarantined for later activation. Additional tugs with firefighting capacity, and specialist training to respond to the types of incidents most likely. User pays training and response services. 	High	<ul style="list-style-type: none"> NT Fire and Rescue Service NTG Proponents Greater Darwin residents

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R-17 Budgetary pressures to increase waste management facilities	New projects require waste management facilities	Possible	Minor	Medium	<p>Waste management facilities in the Greater Darwin region are at capacity. Individual proponents within the MASDP will be expected to manage their own waste disposal although the amount of waste has not been quantified.</p> <p>Darwin City Council's CEO queried what impact Middle Arm would have on waste facilities at Shoal Bay.</p> <p>Current waste management strategies are focussed on the circular economy, not the disposal of non-recyclable waste. The NTIPP (2022) identifies the need for a new leachate pond at Shoal Bay, at a cost of \$8 million, within the next five years and a \$12 million Stage 2 expansion (\$12 million in the next five years).</p> <p>The Litchfield Subregional Land Use Plan (2016) makes provision for a potential new regional waste management facility but this appears to be unfunded. This topic is out of scope for the strategic assessment, which elevates the uncertainty of the MASDP's impact, increasing the risk rating.</p> <p>The Fire and Rescue Service would like access to waste water treatment facilities to accommodate training or emergency response foams.</p>	<ul style="list-style-type: none"> A Greater Darwin region waste strategy that caters for cumulative impacts of industrial waste disposal and population growth, including a new regional waste facility. <p>(Higher rating due to not being covered by strategic assessment and uncertainty about timing)</p>	Medium	<ul style="list-style-type: none"> NTG Industry Local Government NTRFS
R-18 Budgetary pressures on local government to maintain transport infrastructure	Workers commuting to work or extractives on rural roads, eg from Cox Peninsula;	Possible	Minor	Medium	<p>Pressure on local government roads could come from the extractives industry having to move further afield to source materials and workers commuting to Middle Arm from the Cox Peninsula. This would put pressure on unsealed roads, such as Finn Road. This issue was raised</p>	<p>Transport Planning taking account of commuter and extractives traffic, eg from the Cox Peninsula along Finn Road.</p> <p>Funding support to Litchfield Council to upgrade rural roads.</p>	Low	<ul style="list-style-type: none"> Litchfield Council Infrastructure NT Transport Planning Extractive Industries Association Road Transport Association

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				by Litchfield Council and the Road Transport Association of the NT.				
Section 8: Economies (jobs, industry participation, livelihoods, economic and community development)								
R-19 Skills shortages constrain growth and lead to crowding out	Start of construction and operations draws on existing workforce	Almost certain	Extreme	Very high	<p>The Northern Territory and Australia already face extreme worker shortages, both professionals and trades, which is likely to constrain economic development and service delivery.</p> <p>Challenging economic conditions and worker shortages in the NT are exacerbated by an outflow of young workers, competition from other jurisdictions and skilled migration drying up during COVID. Liveability issues such as crime and the cost and availability of housing are additional deterrents to attracting and retaining workers in a tight market.</p> <p>Local construction businesses could lose staff, face escalating costs and declining productivity due to workforce challenges. Given current conditions, this risk is considered likely and extremely consequential. The breadth and duration are uncertain but workforce shortages could undermine the Territory's economic growth targets. The risk is therefore assigned an initial rating of VERY HIGH, reducing to HIGH with a sustained, collaborative and innovative approach.</p>	<p>High</p> <ul style="list-style-type: none"> • Opportunities for workforce development plans to support local recruitment and retention, whole of industry approach with gas-based and marine industries. • A workforce development strategy that 'grows our own' workforce by moving long-term unemployed into employment pathways. • A skilled migration policy that focusses on trades and skills likely to be needed in manufacturing and the 'new economy' of renewable energy. • Target students who can meet skills shortages and make it easier to obtain visas. • Target countries where migrants report high satisfaction with the NT, eg the Philippines. • Continued marketing strategies targeting skills in highest demand. • Adopt recommendations in the attached workforce development strategy as labour demands become more certain. • Adopt recommendations in the ACIL Allen report (2022) for the Property Council of Australia NT and Workforce Development Strategy at Attachment 4. • Adhere to land use plans, including proposed Weddell/Middle Arm subregional plan (discussion paper in mid-2023). 		<ul style="list-style-type: none"> • NTG • DITT • industry groups • workers • training organisations
R-20 Displacement of other economic sectors due to	Industrial land use and marine activities are incompatible	Likely	Moderate	High	Land and sea use conflicts may displace other sectors, which might be individually small but which collectively account for	Medium	<ul style="list-style-type: none"> • Planning Commission • Tourism, extractives, aquaculture and 	

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land and sea use conflicts	with existing economic sectors				<p>substantial employment and economic activity. This includes:</p> <ul style="list-style-type: none"> • incompatibility of the development with Darwin's tourism image; • displacement of extractive companies; • pollution or increased brine concentration of sea water damaging the aquaculture sector, particularly hatcheries on Channel Island and along the Blackmore River side of the Middle Arm peninsula; • potential incompatibility of development with land use objectives at Weddell, including emissions affecting potential residential land, demands for solar farms and industrial land; • ferry transport to the Elizabeth River Bridge. <p>Competitive for limited land may deter or displace other investors once the precinct is fully-subscribed.</p>	<ul style="list-style-type: none"> • Type and scale of development that is sensitive to existing sectors and proposed residential areas. • Master planning for the precinct and land use planning for the Greater Darwin Region identifies projects that are the best strategic fit with the precinct concept and identifies alternative sites for others. • Rigorous hydrodynamic and water quality monitoring that takes account of the sensitivity of harms to aquaculture. • Engineering solutions include avoiding any potential pollution to aquaculture intake pipes. • No discharge of heavy metals or contaminated water (to be collected on site). 		<p>recreational fishing industries</p> <ul style="list-style-type: none"> • Local business and industry associations • Litchfield and Palmerston Councils • NT Government
R-21 Failure to deliver local contracts and benefits to local industry sectors	Project announcements, start of procurement and construction	Possible	Minor		<p>While the business community is generally supportive of the Middle Arm project, many are operating at capacity and short of staff, so expectations may not be high to start with. There is some cynicism about whether benefits from large projects flow to local companies.</p>	<ul style="list-style-type: none"> • Procurement policies that favour local businesses and build capacity. • Sequencing of projects to give local businesses the confidence to expand. • Recruitment, training and retention of workers. 	Low	<ul style="list-style-type: none"> • NT Government • Industry groups
R-22 Failure to deliver on expectations of jobs and training,	Start of training and recruitment, construction and operations	Possible	Insignificant		<p>There is low unemployment and high participation in the Territory. The main benefit of the project would be moving disengaged and long-term Aboriginal</p>	<ul style="list-style-type: none"> • Intensive support and mentoring for the long-term unemployed, based on the breadth and longevity of opportunities. 	Low	<ul style="list-style-type: none"> • Aboriginal organisations and residents • NTG

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particularly for Aboriginal workers.				people from unemployment and disadvantage and exceeding what may be low expectations. Focus on the quality, not just the quantity, of employment outcomes.	<ul style="list-style-type: none"> A focus on social as well as economic outcomes. Adhering to the Aboriginal Procurement Policy. 		<ul style="list-style-type: none"> Industry groups Employment and training providers. 	
Section 9: Cultural identity (connections to kin and country, cultural values, traditional livelihoods)								
R-23 Distress at damage to sacred sites from land clearing, dredging or construction activities	Construction, dredging and changes to tidal activity causing silting	Possible	Moderate	High	Cultural heritage will be covered by Earthsea Heritage Surveys. The consequences of damage to nearby cultural heritage would cause distress, therefore this impact has a higher rating. Damage may be inadvertent, through a lack of knowledge and understanding, or through cumulative deposits of sediments and increased shipping.	<ul style="list-style-type: none"> AAPA certificates Avoidance of sacred sites or cultural heritage in planning Close relationships and engagement with custodians of sites Cultural heritage monitors Cultural protocols and training for workers Clearly marked restricted work areas. 	Medium	<ul style="list-style-type: none"> Larrakia custodians and traditional owners AAPA NLC Larrakia Rangers Larrakia Nation Larrakia Development Corporation Tiwi Land Council and traditional owners
R-24 Distress at damage or loss of heritage or historical sites	Construction, land reclamation and dredging disturb heritage sites	Possible	Minor	Medium	Development can affect historical values, beyond those formally protected by heritage legislation, in particular historical ties to early settlement and World War II activities around Darwin Harbour. There has been a cumulative loss of these sites with time and from development, particularly at East Arm.	<ul style="list-style-type: none"> Avoidance of heritage sites Engagement with heritage stakeholders about how to maintain a balance between development and heritage values Heritage stakeholder input into decisions about development of Middle Arm Interpretive signage 	Low	<ul style="list-style-type: none"> Heritage Branch Heritage Advisory Council National Trust Historical Society Darwin Military Museum
R-25 Reduced biocultural knowledge and ability to pursue cultural activities	Start of dredging, clearing and construction leads to pollution and				Reduced access or time for traditional activities can lead to a loss of cultural knowledge about the names and uses of flora and fauna in the harbour catchment area.	<ul style="list-style-type: none"> To come from Larrakia 		<ul style="list-style-type: none">

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
		Likelihood (before mitigation)	Consequence	Significance before mitigation				
R-26 Diminished cultural values or reduced cultural identity	access constraints Reduced access to areas important for cultural activities and passing on biocultural knowledge, damage to areas used for traditional activities				Activities that are important for cultural values and identity include fishing, foraging for shellfish, camping and enjoyment of places around the harbour. Development could limit public access and the ability to continue some activities and pass on knowledge, reducing cultural identity. Spills, discharge or other contamination could lead to health concerns from eating shellfish, fish, and limit Larrakia hunting/gathering around the harbour. Relevant human rights include freedom from racism or discrimination based on race, gender or religion. This may be overt racism in the workplace, or more subtle systemic barriers that might preclude women from the workplace. While Native Title Rights have been extinguished at Middle Arm, Larrakia people have not ceded sovereignty and retain strong connections to their land and seas. A key human right is that of Free, Prior and Informed Consent (UN Declaration on the Rights of Indigenous Peoples, 2007), which is reflected in key NTG policies such as Local Decision Making and the NT EPA's engagement guidelines.	<ul style="list-style-type: none"> Engagement with Larrakia people about how to maintain a balance between development and cultural values Larrakia input influences decisions about development at Middle Arm Planned development of Middle Arm that balances economic development with cultural values 		<ul style="list-style-type: none"> Larrakia custodians and traditional owners Larrakia Rangers Larrakia Nation Larrakia Development Corporation
R-27 Reduced enjoyment of human rights, racism, discrimination or marginalisation	From project announcements throughout the life of the project				<ul style="list-style-type: none"> Early and meaningful engagement with Larrakia and Tiwi peoples. Culturally appropriate communication and engagement methodologies. <p>To come from Larrakia</p>		As above	
Section 10: Healthy country (commercial, cultural, recreational, aesthetic benefits from the use of land and clean air and water)								
R-28 Poor water quality and fish health reduces	Dredging, construction activities causing turbidity and	Possible	Moderate	High	Several groups flagged concerns at the impacts of development at Middle Arm and in Darwin Harbour on fish health, from discharges of heavy metals or	<ul style="list-style-type: none"> Development at Middle Arm that minimises impacts to fish health/ecosystems. 	Medium	<ul style="list-style-type: none"> DHAC AFANT Larrakia people ECNT

Positive or negative impact	Impact pathway triggering change process	Significance Assessment		Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
		Likelihood (before mitigation)	Consequence				
recreational fishing	noise; spills or contamination by projects; clearing of mangroves			toxins, heightened biosecurity risks and disturbance to the harbour's ecosystems. Alarm regarding discharges was also raised during consultation and submissions from fishing, environmental, Larrakia and aquaculture groups on TNG's proposed Middle Arm processing plant at Middle Arm. Recreational fishers are highly sensitive to the implications of clearing mangroves or harming seagrass beds, which are breeding or eating habitat.	<ul style="list-style-type: none"> Rigorous environmental management plans and monitoring. Engineering controls to prevent pollution, including no discharges of heavy metal or contaminants. Harbour dredge management strategy. (This assessment does not extend to the impacts of desalination.)		<ul style="list-style-type: none"> Environmental and community groups Harbour tourism operators Darwin Port Researchers
R-29 Diminished ecological values of the harbour	Start of construction, dredging, piling, clearing of mangroves and industrial activities; Population growth	Likely	Moderate	The harbour's natural assets are highly valued by many stakeholders, particularly long-term residents. The community would be sensitive to any decline in the harbour's ecological values, particularly if these are permanent. Population and industrial growth increases the risks of pollution on coral, marine mammals, birdlife, corals, fish, mangroves and seagrass. The risks are heightened by the diffuse sources of additive impacts and the likely scale and duration of dredging and shipping. This could include marine strikes of marine mammals and disturbance to habitat such as mangroves and seagrass. Progressive growth compounds the cumulative risks of species loss and compromises the harbour's ecological values.	<ul style="list-style-type: none"> Development that minimises impacts on the biodiversity of the harbour Rigorous environmental management plans and monitoring. Darwin Harbour dredge management strategy. Community input into planning for the future development of Middle Arm Regulations/requirements in place to minimise the risk of biodiversity impacts To come from marine studies	Medium	<ul style="list-style-type: none"> DHAC Commercial and recreational fishers Aquaculture NTG Community and environmental groups Researchers Darwin residents Tourists

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R-30 Constraints on the emerging aquaculture sector due to pollution, biosecurity risks, reduced water quality	Dredging, construction and marine activities	Possible	Moderate	High	Marine/environmental health is crucial for the marine aquaculture and commercial fishing industries. Aquaculture businesses operating in the harbour would be impacted by reduced harbour health or reduced water quality at intake pipes for hatcheries. Increased marine traffic brings biosecurity risks, such as pests and diseases, that could devastate the local aquaculture industry.	<ul style="list-style-type: none"> Engineering controls on development in Middle Arm to avoid impacting the health of the harbour/water quality. Rigorous environmental management plans and monitoring. Strict biosecurity controls in line with recently raised standards, e.g. no discharge in Territory waters (As above) no discharges of heavy metals or other contaminants into Elizabeth River or Middle Arm/Blackmore, with particular sensitivity at the Darwin Aquaculture Centre. 	Medium	<ul style="list-style-type: none"> Aquaculture operators DHAC Commercial fishing industry - waters near the harbour
R-31 Greenhouse gas emissions jeopardise the NT's zero emissions targets and contribute to climate change	Land clearing, dredging, construction and operations	Almost certain	Major	Very high	Given that the Middle Arm precinct was announced as supporting gas-based manufacturing and petrochemical industries, it has attracted strong criticism from environmental groups. The most recent independent oversight report on the Hydraulic Fracturing Inquiry (November 2022) notes that the Territory is unable to meet its objective of reducing the life cycle greenhouse gas emissions from development of the Beetaloo without support from the Commonwealth and other states. Based on the scope of development covered by the SEA informing assumptions for this assessment, the Middle Arm precinct will contribute the equivalent of xxx % of the Territory's emissions, which would substantially compound this dilemma without renewable energy and robust carbon capture and storage solutions.	<ul style="list-style-type: none"> Selection of industries that are a strategic fit with the concept of a sustainable precinct (i.e. lower carbon emissions). Carbon capture and reuse to reduce emissions from existing LNG plants would be acceptable to some opponents of fossil fuels. Conditions to prevent growth ahead of ability to abate or offset emissions. <p>To come from GHG report</p> <p>NB: CSIRO report and media coverage on the credibility of carbon offset schemes</p>	High	<ul style="list-style-type: none"> NTG Australian Government Oil and gas industry Environment groups Community

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
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Section 11: Living environment (surroundings, amenity issues, landscape)								
R-32 Increased travel times and traffic congestion for road transport operators, Palmerston residents and commuters	Heavy vehicles and worker traffic during clearing, construction, operations	Likely	Insignificant	Medium	Queensland and NSW land courts are rejecting approval of coal mines that generate scope 3 emissions and a new Australian Government showing a greater commitment to reducing Australia's carbon emissions. Increased self-drive traffic and worker parking was raised as an issue for the TNG Middle Arm processing plant (Elton 2019). The traffic assessment shows high traffic volumes during the peak of construction for the INPEX LNG plant along Channel Island Road. Industrial traffic would increase to transport construction materials and workers to site, including from East Arm Port and quarrying material along the Arnhem Highway. This could cause congestion and slower travel times in and around Palmerston, Channel Island Road, Jenkins Road and Elrondie Avenue, including an incompatible mix with recreational fishing vehicles travelling from the rural area down Jenkins Road to the Elizabeth River boat ramp.	<ul style="list-style-type: none"> Planning and upgrades to roads leading to Middle Arm to cater for increase in construction, industrial and worker traffic. Workers travel to Middle Arm by bus. Eventual duplication of Channel Island Road. Construction of Weddell Freeway to connect Palmerston with Middle Arm and Weddell. Avoiding residential/school areas at peak hour. See also Traffic Assessment at Appendix xxx	Low	<ul style="list-style-type: none"> Palmerston residents Commuters travelling on roads leading to Middle Arm DIPL, Transport Planning Commission Road Transport Association of the NT Palmerston and Litchfield Councils
R-33 Reduced quality of life due to nuisance impacts, such as noise and vibrations, dust, light pollution,	Start of clearing, dredging, construction, pile-driving, compounding with subsequent projects	Possible	Moderate	High	The amenity, or surrounds, of Greater residential areas, Palmerston in particular, could be affected by noise and vibrations, dust, visual impacts such as industrialisation of the skyline, smells and light pollution from construction and operational activities.	<ul style="list-style-type: none"> Management plans that reduce nuisance impacts, including noise attenuation and dust suppression. Rigorous monitoring, reporting and effective grievance policies. Good communication to allay fears or provide advice on likely disruption. 	Medium	<ul style="list-style-type: none"> Local residents Harbour tourism businesses Environmental and community groups Palmerston, Litchfield, Darwin Councils

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
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visual, and smells				High	<p>People are likely to absorb short-term noise, dust and visual impacts from construction however they are less likely to accept long-term, intrusive cumulative impacts.</p> <p>A terrestrial noise and vibration assessment (GHD 2022 at Appendix xxxix) predicts that cumulative industrial noise during operations should not exceed the NT EPA's noise management guidelines except at night, in some weather conditions, in nearby Palmerston suburbs and at Bladin Village on Middle Arm Peninsula. Higher noise and vibrations during construction, such as piling for marine infrastructure, may be experienced temporarily.</p> <p>Impacts on residential amenity may reduce the area of Weddell suitable for residential development.</p> <p>A preliminary visual assessment suggests the precinct will be partly obscured from Stokes Hill Wharf and will be mainly visible from East Arm, Elizabeth River and the Elizabeth River Bridge (including trains and commuters).</p> <p>Need results of technical studies</p>	<ul style="list-style-type: none"> Avoiding intrusive work practices at night, such as piling. Selection of industries least likely to impact on amenity. Landscaping and buffers of mangroves and trees to reduce the visual impacts of the precinct. Complaints hotline. 		<ul style="list-style-type: none"> AFANT
<p>Section 12: Strong voice (having an influence over decisions, governance structures)</p>								
R-34 Loss of trust and confidence in ability to influence decision-making	Announcements and decisions about the project; consultation processes not seen as transparent,	Possible	Minor	High	<p>Stakeholders have taken a keen interest in developments on Middle Arm and East Arm Peninsulas over the past 20 years. Development of the harbour has been contentious in the past. There is potential for social movements to form if people feel disempowered and their values threatened.</p>	<ul style="list-style-type: none"> Meaningful engagement with the community and stakeholders and input into planning for future development of Middle Arm. A key mitigation would be a scaled back precinct in response to community concerns. 	Medium	<ul style="list-style-type: none"> DHAC Councils Industry groups and businesses Larrakia people and organisations Environmental and community groups

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
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	accountable and meaningful				<p>Key issues raised in submissions to the ToR were accountability and transparency of decision-making, the need for a public inquiry to give the community a genuine say and concerns about fast-tracking individual project decisions.</p> <p>Larrakia people have complained at the limited consultation to date. Continued concerns are likely as many decisions have been made without the scope for consultation, eg location and initial configuration of the site.</p>	<ul style="list-style-type: none"> The assurance plan for the precinct should include provision for project-level information and consultation, to be independently assessed by the NT EPA. A precinct-level consultative structure to ensure continued two-way communication. Work with existing groups and governance structures, such as DHAC, councils, industry bodies. <p>Larrakia to advise</p>		<ul style="list-style-type: none"> Recreational fishers Harbour cruises, fishing charters and tourism operators
Section 13: Cumulative								
R-35 Community concern about cumulative impacts of development in Greater Darwin	Announcements and start of construction of MASDP and other projects in the Greater Darwin region; Large influxes of workers	Likely	Moderate	High	<p>Change is inevitable. However, a number of large projects could exacerbate many of the impacts described above, particularly if they occur suddenly or simultaneously.</p> <p>For example, rapid growth could exceed the capacity to plan for and absorb new residents, stretch the labour market, and fundamentally change the way of life that draws people to live in the Greater Darwin region in the first place.</p>	<ul style="list-style-type: none"> Careful and collaborative planning with all stakeholders, in line with current infrastructure and land use planning. An evidence-based approach to longitudinal monitoring of social, cultural, economic and environmental benefits and harms against community standards and desired outcomes. Adopting a balanced approach to development to maintain the equilibrium between the social, cultural, economic and environmental aspects of sustainability. Maintaining a long-term perspective and screening out projects that may provide a short-term 'sugar hit' to the economy at the expense of enduring harms, as experienced by other regions which have experienced sudden, short-term and unsustainable growth. 	Medium	All stakeholders described above and future generations of Darwin residents and businesses.

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
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R-36 Concerns about piecemeal development in Darwin harbour	Individual project announcements at Middle Arm	Possible	Minor	Medium	<ul style="list-style-type: none"> Project announcements, proposals and industrial developments around Darwin harbour have generated community concern about the impacts on the harbour and the piecemeal approach to development. The Darwin Harbour Strategy 2020-2025 refers to the need for sustainable management of Darwin Harbour. 	<ul style="list-style-type: none"> Development of the strategic impact assessment takes into account the cumulative environmental, social and economic impacts of development at Middle Arm and in the human and natural catchments of Darwin Harbour. A harbour-wide dredge management strategy and regional conservation plan. Existing long-range infrastructure, land use planning and economic plans. 	Low	<ul style="list-style-type: none"> As above
OPPORTUNITIES								
Social infrastructure								
O-1 Greater community vitality through enhanced social infrastructure	Population growth leads to new schools, health centres, housing options, transport, utilities	Unlikely	Minor	Barely noticeable	<p>A pipeline of projects should support population growth as workers and their families relocate, including skilled migration.</p> <p>Population growth may provide the impetus for enhanced social infrastructure.</p> <p>However, the diffuse and uncertain nature of this benefit and challenges establishing cause and effect lead to a lower opportunity rating.</p> <p>The Greater Darwin Water Strategy acknowledges pressures on existing water supply and pressures to expand. This infrastructure project is a priority of the NTIPP and has funding support from the Australian Government. An enhanced water supply is a critical enabler of</p>	<ul style="list-style-type: none"> Land use and infrastructure planning and needs analysis should help optimise the benefits of growth and inform fiscal planning by the NT and Australian Governments 	Barely noticeable	NT Government Planning Commission Infrastructure NT Darwin, Palmerston and Litchfield municipalities Greater Darwin residents
O-2 Enhanced water supply that benefits other sectors	Project a catalyst for development of new water supply	Almost certain	Extremely important	Beneficial	<p>Implementation of Greater Darwin Water Strategy, including Manton Dam return to service and AROWS project.</p>	<ul style="list-style-type: none"> Implementation of Greater Darwin Water Strategy, including Manton Dam return to service and AROWS project. 	Transformational	Power and Water Corporation NTG Australian Government Local Government Industry associations

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
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O-3 Diversified, more reliable and affordable energy supplies	Industrial demand for energy, including renewable sources.	Possible	Important	Beneficial	<p>economic growth and has bipartisan support. A business case by PwC supports the Manton Dam return to service and AROWS project. An EIS is due to start in 2023.</p> <p>Development of Middle Arm should provide the impetus and economic rationale to proceed with the AROWS project, diversify water sources and create widespread benefits to other industrial, horticultural and residential customers.</p> <p>Should there be delays and demand outpaces available supply, this becomes a major risk (see R-11), with consequential indirect risks (for example if AROWS is delayed or desalination is used).</p> <p>The Greater Darwin region's aging gas turbines and reliance on Blacktip gas leave the region vulnerable to energy insecurity. Expanding the system's capacity and providing new sources of industrial-scale, dispatchable renewable energy would be significant if technical issues can be resolved. This would provide security to residential and industrial customers and constitute a key enabler for a value-adding manufacturing sector.</p> <p>However, given that initial plans are for a stand-alone, common user grid, these benefits are unlikely to be realised immediately.</p>		Power and Water Corporation Jacana Energy Territory Generation Industry Residential customers	
Economic								

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O-4 Sustained local prosperity through regional economic development, diversification and population growth	Construction and operation create pipeline of jobs and enable projects	Likely	Moderate	Noticeable	Economic diversification will contribute to immediate and long-term jobs, modernise the Territory's economy, build productivity and human capacity and contribute to population growth. A larger advanced manufacturing sector will develop new value-adding economic sectors. These opportunities will be enhanced by the NTG's implementation of TERC recommendations, a steady pipeline of projects and government and private sector investment in enabling infrastructure, as outlined in the NTIPP.	Collaborative implementation of a raft of policies and strategies will help deliver success including: <ul style="list-style-type: none"> . regional development plans . procurement policies . business growth . workforce development . investment in social infrastructure . population strategies . marketing campaigns . maintaining the liveability of the Greater Darwin region (including crime). 	Beneficial	<ul style="list-style-type: none"> • NT Government • Industry groups • Greater Darwin businesses • ICNNT
O-5 More viable port and maritime sector	Project operations contribute to economic activity at the port and maritime precinct	Possible	Minor	Noticeable	A draft Maritime Industry Development Plan aims to build the capacity of Darwin's maritime sector, which is complementary to development on Middle Arm and the broader service and supply sector. The precinct is likely to grow Darwin's competitive advantage and trade through the port, both imports to support construction and increased exports. Bulky goods will travel from Middle Arm to the port. There will be expectations of local contracts for projects. Increased local service and supply should have ongoing economic benefits. Opportunities for contracts with a pipeline of projects at	Implementation of key government infrastructure, economic and maritime policies, support industries (eg Ship Lift). Coordination between stakeholder groups.	Beneficial	<ul style="list-style-type: none"> • Darwin Port • NTG • Marine industry stakeholders • Marine Industry Council • Port Users Group
O-6 Stronger business community	Start of construction creates cumulative opportunities for service, supply	Likely	Important	Noticeable	There will be expectations of local contracts for projects. Increased local service and supply should have ongoing economic benefits. Opportunities for contracts with a pipeline of projects at	<ul style="list-style-type: none"> • Local participation plans/Territory Benefit Plan • Development of industry plans, eg ICN capability mapping (identify capacity and capability, skills shortages, training and development opportunities) 	Beneficial	<ul style="list-style-type: none"> • Local business and industry groups • ICN NT • NTG

Positive or negative impact	Impact pathway triggering change process	Significance Assessment			Explanation	Mitigation measures (negative) Enhancement measures (positive)	Residual rating (after mitigation)	Stakeholders and potentially affected people
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O-7 Enhanced human capital through sustained growth of a skilled workforce	and support industries Influx of workers and their families and opportunities to grow a local workforce, particularly Aboriginal jobs, training and apprenticeships	Likely	Important	Noticeable	the MASDP will enable local businesses to increase capacity and capability. Skills shortages are one of the constraints to economic development in the NT. Long-term service and supply opportunities with multiple projects allows long-term planning and the ability for local businesses to address skills shortages. Research and development opportunities would grow human capital. Population growth and skilled migration will enhance the local labour force and skills base. The extent, duration and scale of change may be difficult to attribute to Middle Arm (will require rigorous data-gathering from proponents).	<ul style="list-style-type: none"> Local participation plans/Territory Benefit Plan Collaboration to build skills, implement workforce development plans. Sequencing of projects to suit local capabilities and deliver social outcomes. 	Beneficial	<ul style="list-style-type: none"> NTG Local industry Chamber of Commerce training institutions
O-8 Enhanced capabilities of Aboriginal businesses due to successful tendering	Procurement policies and practices lead to successful tendering by Aboriginal businesses	Possible	Minor	Noticeable	There has been a growth in Aboriginal-owned enterprises and recognition of the importance of this sector to sustainable economic development that also delivers social and cultural benefits, including jobs for Aboriginal people on their Country. The scale of change may be lower given the current number of Aboriginal Business Enterprises, however the precinct may provide opportunities for Aboriginal-led economic development and more durable enterprises.	<ul style="list-style-type: none"> Aboriginal Procurement Strategy Aboriginal Economic Development Strategy Use of ICN and Indigenous Business Network certified Aboriginal Business Enterprises 	<ul style="list-style-type: none"> Beneficial 	<ul style="list-style-type: none"> Aboriginal businesses and corporations Larrakia organisations NTG Aboriginal Affairs NTIBN
O-9 Enhanced standard of living and material wellbeing	Start of construction leads to higher wages and business opportunities	Possible	Insignificant	Barely perceptible	Economic development should flow through economy as wages and taxes, while employment opportunities should enhance the material wellbeing of a local workforce. However, the diffuse nature of this benefit would make it difficult to	Economic development that has a focus on sustainable, inclusive and equitably shared benefits would increase the likelihood of realising material and social wellbeing. The Social Performance Plan will establish objectives and indicators to track the	Noticeable	NTG Darwin residents Service organisations

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					establish cause and effect and attribute to any one development. The proportion of economic contribution by Middle Arm would also likely decline as projects move to their operational phases and other projects start up in the Darwin region over the next 50 years.	contribution of Middle Arm projects to local wellbeing.		
Cumulative								
O-10 Collaborative approaches to build human capital and collective benefits	Pipeline of projects and local contracts	Possible	Insignificant	Barely perceptible	The NT Government's vision of a \$40 billion economy and population of 300,000 by 2040 will have many benefits for Territorians by stimulating and diversifying the economy.	Innovative, collaborative approaches to building capacity, guided by clear strategies, focus, policies and investment. Will require coordinated investment by both government and the private sector. As above: implementation of existing plans.	Beneficial	NTG Industry associations Businesses Residents



Attachment 2: Social sustainability framework