Pilbara's Port City Implementation Plan



















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Property – AEC Group

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FOREWORD



MAYOR'S FOREWORD

The Town of Port Hedland and lead consultants RPS have been working hard and collaborating with industry, business and community to create this document–Pilbara's Port City Growth Plan. This document provides a framework towards achieving Council's vision of transforming Hedland into Pilbara's Port City of 50,000 people. Our City will boast an attractive and vibrant CBD areas with public open spaces, cafes, restaurants, boutiques, offices and residential dwellings. Our Spoilbank Marina will be the highlight of our rugged and picturesque coastline – the marina will include the world's best entertainment, recreation and tourist facilities including boat pens, boardwalk with cafes, fishing and bait stores as well as areas for parks, public swimming and environmental interpretative opportunities.

Council understands that one of the biggest issues facing Hedland is the lack of accommodation and housing and the rising cost of living. Pilbara's Port City Growth Plan will assist Council in finding solutions to these problems to ensure our City becomes an attractive and sustainable place for families to live in. Since the City Growth Plan forums, short and medium-term solutions have already been identified and implemented – marking a positive direction forwards for Council and Hedland.

Over the next 24 years, Council will work with partners including Federal and State Government, industry, local businesses and community to achieve our vision of transforming from a regional town which is an important export hub, to Pilbara's Port City – a nationally significant friendly City boasting a population of 50,000 and some of the world's best infrastructure, community spirit and our unique North-West coastal lifestyle. Pilbara's Port City - where parents can raise their children, young people can come and make their mark, grandparents can enjoy times with their grandchildren and long term residents chose to retire and live locally.

To each and every one of you it is your involvement, the completion of significant infrastructure projects, the working together as a team and your continued support that will ensure Port Hedland – Pilbara's Port City achieves our vision and is one of the top cities to live in by 2035.

Kelly Howlett

Mayor, Town of Port Hedland



CEO'S FOREWORD

Our vision is clear – by 2035 Port Hedland will be Pilbara's Port City, a nationally significant friendly City where people want to live and are proud to call home.

Pilbara's Port City Growth Plan will help us achieve this vision – it will be Council's key strategic document which will outline key focus themes that are significant to the growth of Port Hedland into a regional City.

The Growth Plan takes into consideration previous strategies, plans and consultations including last year's Pilbara Placemaking Series by FORM, the Town of Port Hedland Land Use Master Plan (LUMP) and the Town's

Strategic Plan 2010-15. There will be two parts to the Growth Plan: a visioning document and an implementation plan which will draw upon the visioning document.

The Growth Plan will be a detailed document addressing underlying social, economic and environmental issues in a defined area to achieve a 'sustainable city', including increasing economic diversity, private and public sector investment and improved infrastructure co-ordination. Projects need to be delivery focused, and where necessary, delivered through partnerships; and outcomes and benefits will reflect the community's vision for the area and enable stakeholders to coordinate their plans and programs with our vision to achieve an integrated approach to implementation.

The Pilbara's Port City Growth Plan has undergone extensive background work to enable it to reach its current stage. The project has a steering group comprised of the Town of Port Hedland, Pilbara Cities, Department of Planning and LandCorp. A stakeholder reference group has also been formed involving representatives from government, resources, small business and community groups.

Pilbara's Port City Growth Plan has involved extensive consultation with the broader community to incorporate their vision and ideas for the direction and growth of Port Hedland into a City they want to call home. The Town of Port Hedland and their consultants have undertaken a series of focus groups and workshops on a variety of identified themes, followed by a two day forum finalising key points and ideas gained from the consultation.

The Growth Plan also focuses on improving the community in which we live in – this includes providing more facilities and amenities, introducing new community initiatives, supporting community groups and not-for-profit organisations and ensuring all the needs of members of the community are continually addressed to a satisfactory level. Community is the cornerstone of any place and is one of the key foundations to building an attractive City.

I am looking forward to working with our stakeholders, partners and the community in achieving our vision for Hedland and I believe this document is key to ensuring we address all issues which arise on our journey to becoming Pilbara's Port City.

Paul Martin

Chief Executive Officer, Town of Port Hedland

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

i Background

In December 2010, the Town of Port Hedland (ToPH) engaged RPS, as Lead Consultant, and a multi-disciplinary team to prepare a Growth Plan (Pilbara's Port City Growth Plan) for the Council. The Growth Plan provides a high level strategic blueprint to facilitate the sustained growth of Port Hedland into Pilbara's Port City, with a population of 50,000 people.

In support of the production of the Growth Plan and this Implementation Plan, comprehensive studies and investigations were undertaken across the following disciplines:

- ♦ Town Planning and Urban Design;
- Economic Development;
- Property Analysis;
- Sustainability;
- Landscape Architecture;
- Civil Engineering;
- Environment;
- Indigenous and Non-Indigenous Heritage;
- Stakeholder and Community Engagement;
- Traffic and Transport; and
- Community Development and Place Making.

The compilation of these reports have had targeted as well as general community participation, input and comment.

The requirement to prepare a Growth Plan is underpinned by a recognition on the part of the State Government, together with the ToPH, that it is necessary to plan for the availability of adequate land into the future taking into consideration the lead times to provide this land to market.

The Growth Plan is supported by this document – Pilbara's Port City Implementation Plan.

The recent growth in population (resident and transient workers) and economic activity, coupled with a general undersupply of residential and non-residential properties, has had a significant effect in driving up property and rental prices in Port Hedland.

The very high prices and lack of supply are creating significant problems for local communities and businesses, and is a significant constraining factor for future population growth and the provision of a strong labour market to support strategic industry and local/regional services.

This affordability and housing pressure is coupled with ever increasing pressure on community and social infrastructure and services needed to support a sustainable community.

Over the next 20 years, rapid residential growth will drive increased housing demand, and require the identification and subsequent delivery of residential development sites (both infill and Greenfield) across both Port and South Hedland.

The Growth Plan identifies land and housing capacity for some 23,000 new dwellings (allowing for normalised vacancy rates within the market) and a population of over 54,000 people.

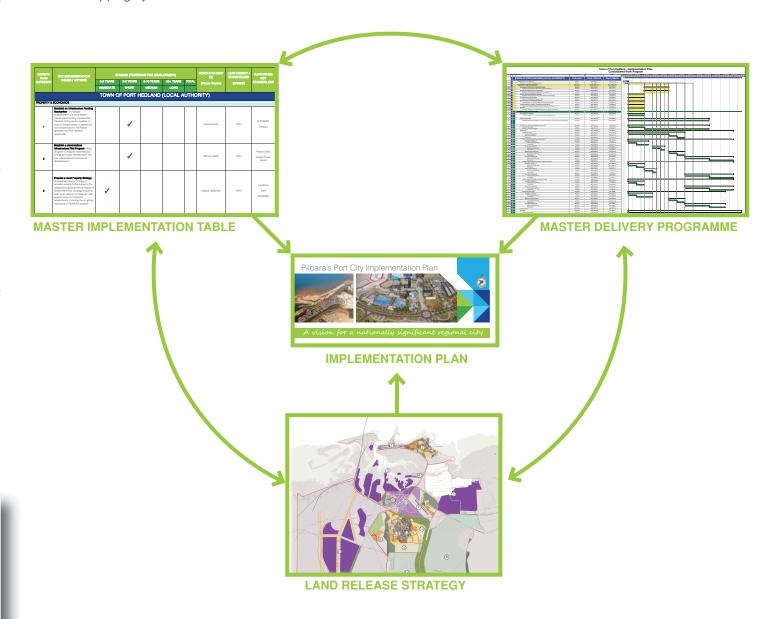
This Implementation Plan outlines the requirements to deliver the objectives of the Growth Plan, including identification of a land supply strategy for those areas in the Growth Plan Precincts identified as having development opportunities. The Implementation Plan is a flexible document designed to respond to a range of growth scenarios. Given the challenges and constraints to the future growth of Port Hedland identified in both the Growth Plan and Implementation Plan, particularly in relation to servicing and infrastructure capacity, there is an urgency to secure funding from the Government to enable the over-arching constraints to be addressed as quickly as possible.

While the Implementation Plan has been prepared as a separate document to the Growth Plan it is intended that both documents be read and cross-referenced concurrently.

The Growth Plan was advertised for public comment during October 2011 and received a total of 22 submissions being received. These submissions were considered in consultation with the ToPH, resulting in a number of modifications to the final Growth Plan document.

The final version of the Growth Plan was adopted by the Town of Port Hedland in May 2012, and endorsed by the Pilbara Regional Planning Committee of the Western Australian Planning Commision in June 2012. The Growth Plan will act as Council's Local Planning Strategy to form the basis for subsequent Town Planning Scheme 5 (TPS5) review.

The Implementation Plan has no statutory basis and therefore does not require formal endorsement by the WA Planning Commission. This final version of the Implementation Plan reflects the review and workshopping by the Town of Port Hedland.









ii Recommendations

A number of over-arching recommendations, consistent with the Growth Plan, underpin the Implementation Plan Actions. These are as follows:



PROPERTY AND ECONOMICS

- 1. **Maximise** the availability to the market and public of information relating to housing, population growth and business development, to reduce speculation, empower the private sector and help normalise property markets.
- **2. Provide** confidence in the long-term prosperity of Port Hedland through long-term serviced land supply.
- **3. Provide** a diversity of housing options and choice, to cater for short-term visitors and long-term residents alike.
- Reduce the transaction costs of doing business, through increased use of technology, increased labour accessibility and decreased business accommodation costs.
- Capture mining sector supply chain activity locally, to increase the employment and value-add benefit of mining to the Port Hedland economy and help diversify the types of jobs and business.
- **6. Transition** Port Hedland from a mining-dominated mono-economy to a population-serving economy, through increased provision of health, education, retail and cafe and restaurant offering, coupled with locations of high natural and urban amenity.



HOUSING AND LAND SUPPLY

- **7. Ensure** there is a sufficient forward supply pipeline of housing and zoned/serviced land across a range of locations, to meet immediate demand as well as help normalise the property market over the long term.
- **8. Increase** the supply, diversity and density of housing stock to meet the full range of accommodation requirements for all market segments traditional houses, small lot houses, townhouses/medium density product, and medium/high rise apartments.
- **9. Improve** access to housing and non-residential property through flexible and adaptable tenure, purchase/equity and land use arrangements (e.g. part/shared ownership schemes, promotion of home business solutions etc.).
- **10. Attract** new permanent residents and business investment through financial incentives, encouraging development competition (and feasibility) and improving the supply of property and investment information to the market.



COMMUNITIES AND CULTURE

- **11. Identified** community facility development to occur within a defined hierarchy of regional, district and local sites, and informed by the Port Hedland City Growth Model.
- **12. Infrastructure** development to incorporate/reflect indigenous and non-indigenous heritage elements (e.g. design features, public art, place making etc.).
- **13. Development** and implementation of a Local Community Plan and Civic and Cultural Strategy.
- **14. Increased** communication and consultation with community members, industry partners and other stakeholders to inform the development of future Community and Cultural development initiatives.



ENVIRONMENT AND CHANGE ADAPTATION

- **15. Proactive** environmental investigations (e.g. flora/fauna, water management, contamination, coastal setbacks etc) for priority land release sites to inform timely identification of design responses and management actions.
- **16. Active** monitoring of environmental factors (quality, quantity etc) to inform ongoing development, land use and management actions (e.g. air quality, noise, water quality etc).
- **17. Facilitate** and encourage increased State/Local Government agency capacity and coordination with regard to the timely consideration of environmental approvals and identification long term strategic initiatives (e.g. change adaptation and resilience initiatives).

INFRASTRUCTURE CAPACITY

- **18. Identification/progression** of priority transport infrastructure upgrades and works to unlock development sites and resolve safety/traffic management conflicts.
- **19. Progression** of business case development and detailed feasibility investigations for sustainable transport solutions, particularly those aimed at improving access to employment/training and between Port and South Hedland.
- **20. Proactive** early planning and consultation with infrastructure providers to ensure timely provision of serviced land to the market.
- **21. Increased** agency capacity and cooperation with regard to short term infrastructure provision and maintaining/building long term supply capacity.
- **22. Timely** progression of investigations and works to relocate/ consolidate existing infrastructure currently constraining growth in priority locations (e.g. Port Hedland Waste Water Treatment Plant, South Hedland Landfill site).



EXECUTIVE SUMMARY

iii Priority Actions

The Implementation Plan has identified a number of Immediate and Short term projects which are seen as priority or catalytic projects. It is recommended that, as a minimum, these projects, be progressed on an urgent basis.

It should be noted that the Priority Actions represent the views of the consultants for the Growth Plan and Implementation Plan. The Actions may not align precisely with ToPH's project 'wish list' or strategic project objectives. Nevertheless, the Priority Actions are, in most cases, considered fundamental to 'unlocking' the development constraints identified in the Growth Plan, and for addressing some of the key challenges identified such as economic diversity and housing affordability.

Immediate Term (0 - 2 years)

- Native Title clearances to be obtained for key development sites / areas in Port Hedland.
- Commence planning for Key Worker Housing project for South Hedland.
- Implement the Active Open Space Strategy across Port and
- Deliver additional health services to support population growth - community health centre(s), as recommended in the Growth Model
- Deliver additional pre-school and primary school facilities in both Port and South Hedland, as recommended in the Growth Model.
- Commence upgrade and redevelopment of Port Hedland International Airport.
- Expand potable water supply to the Port Hedland Region.
- Commence decommissioning of Port Hedland WWTP and upgrading of South Hedland WWTP.
- Plan and deliver the identified civic and cultural projects and services, including library and indigenous services, and youth park in South Hedland.
- Alternate Tenure Study and Demonstration Project.
- Fast-track statutory and environmental approvals for key infrastructure and development projects (incl. TWAs) through augmenting resources and funding for key Government Agencies.
- Wallwork Road and Bridge to be upgraded to two lanes in each direction immediately.
- Progress planning and design for other key road and transport upgrades identified in the Implementation Plan.
- Undertake a Feasibility/Technical Study in relation to relocation of the landfill site in South Hedland.

LOCAL COMMUNITIES & CULTURE \$342,550,000 PROPERTY & ECONOMICS \$22,200,000 Health & Aged Care • Law & Order Education Tourism • Heritage – European/Indigenous • District Sport & Recreation facilities: - Investment Funding Mechanism - Aquatic Centre • Development Contributions Plan; • Active & Passive Open Space: • Native Title Clearances (Port Hedland): - Skate Park • Commercial/Residential Accommodation Civic & Cultural Assets & Amenities • Business Case and Demonstration Project: - Library & Recreation Centre; Branding & Marketing Initiatives; - Civic Centre: • Asset Management, Financial & ICT Plans - Cultural Centre & Events; • Development Contributions Plan. - Aboriginal Cultural initiatives • Traffic & Roads: - Feasibility Studies - Upgrades & new construction; * Athol/McGregor Streets upgrades: * Wilson Street upgrade; **TOTAL** * Redbank (Bridge) duplication; **INDICATIVE** * Hamilton Road extension; • Strategic Business Cases * Connecting GT. Nthn Hwy with Forrest Circle; COST Land Supply Pipeline Monitoring * Wallwork Road & Bridge upgrades \$1,219,295,000* • Establish dedicated Community Housing Fill Source options study • Water, Sewer, Drainage, Power & Telecommunications studies: organisation Population & Demographic Monitoring - Upgrades, relocations & new construction: * Relocation of WWTP Footpaths and Cycleways: * New cycle lanes along Wedge, Edgar, Mckay, Acton & Howe Streets; * Cooke Point - . . * Sutherland Street coastal part. * Public Transport initiatives:

* Public Transport Strategy * Cooke Point – Pretty Pool Pedestrian Bridge; * Sutherland Street coastal path/boardwalk * Public Transport
• Freight Strategy
• Relocation of Landfill site Airport Upgrade &
 Redevelopment Redevelopment • Technical Studies & Site Investigations, including:

- DWMS;

 - LWMS:
 - Flora and Fauna, including Marine Fauna;
 - Mangrove repropagation;
 - Light Spill

ENVIRONMENT & CHANGE ADAPTATION \$N/A

Total Indicative Costs - Pilbara's Port City Implementation Plan.

* Indicative costs - where known and provided - are for immediate (0-2 years) and short term (3-5 years)actions only

EXECUTIVE SUMMARY

Short Term (3 – 5 years)

- Deliver Key Worker Housing project in South Hedland.
- Implement Cultural Plan.
- Ongoing upgrade and delivery of critical service (water, sewer, power) infrastructure.
- Complete delivery of Port Hedland International Airport.
- Complete post-closure works for ToPH landfill site.
- Deliver pedestrian bridge linking Cooke Point to Pretty Pool.
- Deliver the Civic Centre.
- Deliver the priority road upgrades including Wilson St, Hamilton Rd, Throssell Rd, Murdoch Dr plus others.
- Deliver the GP Housing project (Stage 2).
- Deliver the additional and expanded footpaths and cycleways in Port and South Hedland.
- Establish a dedicated Community Housing Organisation.

There are also a broad range of projects and actions identified in the medium to long term to support the growth of Port Hedland. These are all referenced in the Implementation Framework (in Section 2).

iv. Funding

The Implementation Plan has identified indicative costs, where provided or known, for the action items across the various themes, for the immediate, short, medium and long term timeframes.

These costs reveal a total estimated funding requirement of approximately \$1.8b over the life of the Growth Plan to 2031, with approximately 65% of this (or \$1.1b), perhaps not surprisingly, needed to fund a substantial civil infrastructure and enabling works programme, including the associated technical investigations, for upgrades and/or expansion of the water, sewerage, and power network across both Port and South Hedland.

Under this long term funding scenario, the actions and initiatives captured under the Communities and Culture category will also require a substantial capital outlay (approximately \$600m). In the main, this is required to fund and/or off-set the construction of new civic and cultural facilities (eg. libraries, schools, a hospital, Art Galleries, district sporting facilities, Recreation Centres) and essential services such as health, law and order, and education.

By comparison, significantly less funding (approximately \$38m) is required to progress and/or implement the initiatives captured under the remaining categories of Property and Economics and Housing and Land Supply. Once the enabling service and

community infrastructure and essential services are in place it is anticipated that private developers and landowners will facilitate housing and land supply.

While total indicative costs have been calculated for the various projects and programmes over the life of the Growth Plan, to provide some sense of the significant sums of monies involved, the Implementation Plan recognises the inherent risks and uncertainties associated with the cost of projects earmarked for the medium to longer term. Rather, the Implementation Plan acknowledges an imperative on the part of Pilbara Cities, the ToPH and other key stakeholders to secure funding for those actions and initiatives identified as critical to unlocking and 'deconstraining' land for development purposes. Invariably, these are immediate (0-2 year) and short term (3-5 year) propositions.

With this in mind, the Implementation Plan identifies a funding scenario for all the actions captured within the immediate and short term timeframes. (Figure ii) shows a total funding commitment of approximately \$1.2b. On a category by category basis, these costs are summarised in (Figure iii) below:

GROWTH PLAN CATEGORY	INDICATIVE COSTS (\$) ¹
Infrastructure and Enabling Works	839,395,000
Communities and Culture	342,550,000
Housing and Land Supply	35,150,000
Property and Economics	2,200,000
Environment and Change Adaptation	N/A ²
TOTAL	1,219,295,000

Figure iii: Indicative Costs for immediate (0-2 years) and short term (3-5 years) actions only.

- 1. Costs are based on current estimates only where known or provided.
- **2**. The costs identified for the Environment and Change Adaptation category are excluded from the overall costs on the basis that these costs are significantly disproportionate to the other categories, and they relate primarily to costs associated with studies and investigations required to be undertaken on a site by site basis to mitigate the risks of environmental aspects. Such investigations are generally the responsibility of the individual proponent/ developer to fund. As such, the Implementation Plan has excluded these costs from the overall funding scenario.



iv Governance and Accountability

The Implementation Plan's success for Pilbara's Port City will be achieved through clear governance and management arrangements which minimise risk. The Implementation Plan includes a proposed governance structure for the delivery of projects and programmes (refer Section 3.3), including:

- who is going to 'champion' or manage the various implementation processes;
- who they are accountable to and what they are responsible for; and
- identification of bodies outside the relevant business line, or the agency concerned, who will have a formal decisionmaking or advisory role.

v Next Steps

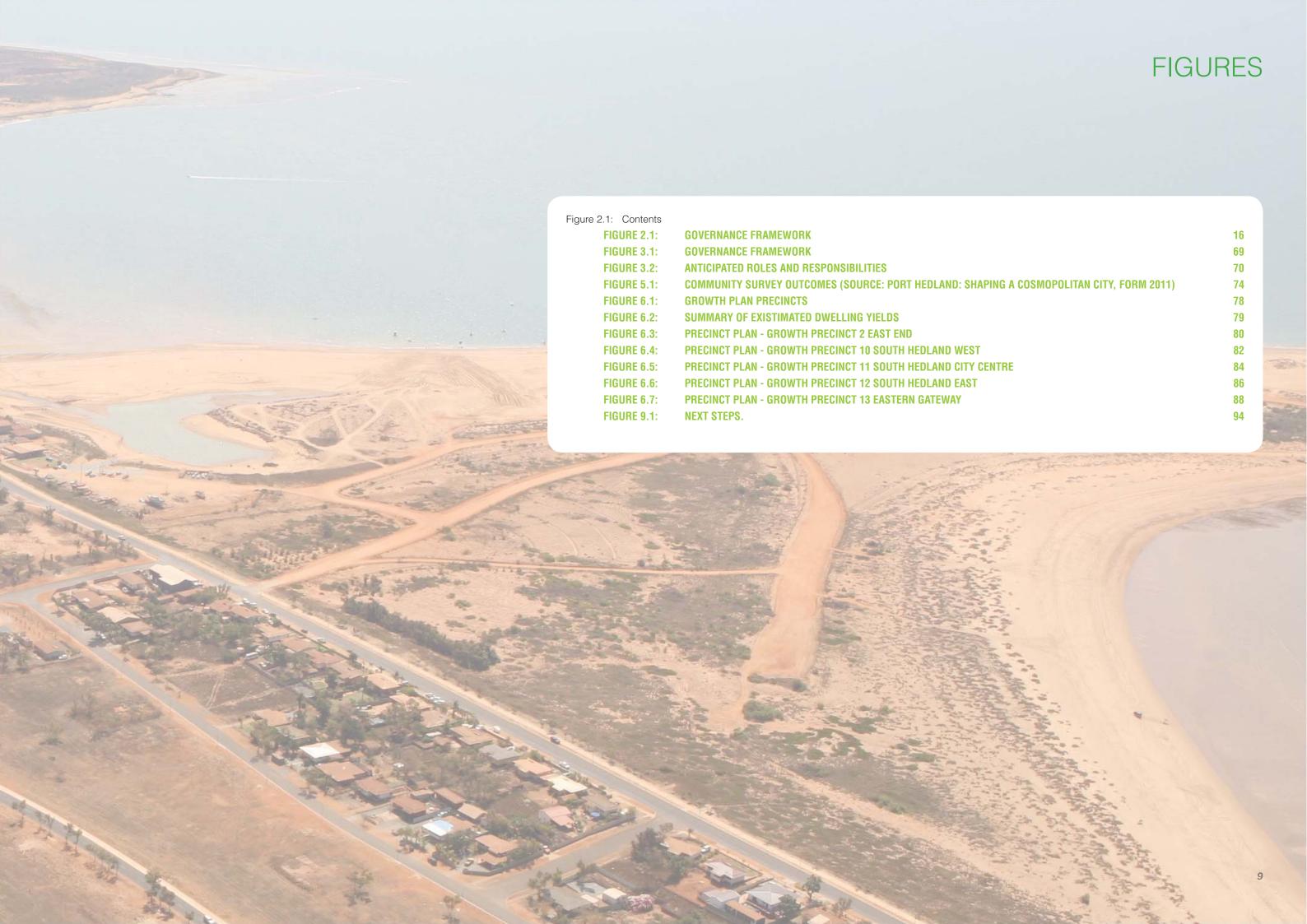
The tasks below represent the next milestones in the process of delivering the projects and programmes identified in the Implementation Plan:

INDICATIVE TIMEFRAME	TASK	
lst Half 2012	Finalisation and Adoption of the draft Growth Plan and Implementation Plan by the ToPH	1.
Ist Half 2012	Endorsement of the Growth Plan and adoption as the Town's Local Planning Strategy by the WA Planning Commission (Pilbara Region Planning Committee)	2.
2nd Half 2012	Establishment of the Pilbara Projects Working Group and Port Hedland Projects Implementation Group	3.
2nd Half 2012	Preparation of relevant Business Cases and detailed Delivery Plans (including funding requirements for additional staff resources within the ToPH)	4.
2nd Half 2012	Secure funding for priority projects and programmes identified in the Implementation Plan to meet immediate and	5.

Figure iv: Next Steps

short term demands

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1.0 INTRODUCTION



INTRODUCTION

1.1 PURPOSE OF THE IMPLEMENTATION PLAN

The Implementation Plan provides a 'road map' for the delivery of the spatial and non-spatial projects and programmes identified in Pilbara's Port City Growth Plan (Growth Plan). The Implementation Plan provides an action plan to realise the vision and objectives of the Growth Plan that will see Port Hedland develop into a thriving city of up to 50,000 people. Importantly, the Implementation Plan provides a framework and basis for State (and Federal) Government, and private sector funding/grants, that will be essential to support delivery of the necessary community and physical infrastructure (refer section 3.3).

A governance framework setting out the roles and responsibilities for all key stakeholders is provided to ensure an appropriate level of accountability in the delivery of the programmes identified.

In the case of the housing supply, a target supply of development ready residential land is prescribed over the following time periods:

IMMEDIATE TERM	0-2 YEARS
SHORT TERM	3-5 YEARS
MEDIUM TERM	6-10 YEARS
LONG TERM	10+ YEARS

In turn, the timeframes identified have been informed by key planning, environmental and infrastructure 'de-constraining' actions (refer Appendix 1).

The implementation strategy is based on the objectives and findings presented in the Growth Plan. A key foundation for growth is the provision of adequate and affordable housing supply. The Growth Plan and Implementation Plan together provide a detailed assessment of demand and supply drivers, and a targeted response.

To ensure an appropriate level of consistency and alignment with the Growth Plan, the Implementation Plan sets out the delivery of key programmes and projects across each of the five core themes or categories identified in the Growth Plan, namely:

- Sustained and Diversified Economic Growth;
- Strengthening Local Communities and Culture;
- Housing Diversity and Land Supply;
- Environmental Protection and Change Adaptation; and
- Building and Maintaining Infrastructure Capacity.

In the Implementation Plan, these categories are captured as Property and Economics; Communities and Culture; Housing and Land Supply; Environment and Change Adaptation, and Infrastructure Capacity.

Critical lead-time projects have been elevated and prioritised

in the Implementation Plan to facilitate the fast-tracking of programmes of work. For example, opportunities to fast-track infrastructure capacity and environmental studies that can take a number of months (and years in some cases) will be considered to ensure an adequate supply of "development ready" land is readily available.

Critically, the governance framework identified must have the support of key stakeholders and the community and empower the key delivery bodies with responsibility and the corresponding accountability. Key decision making points / milestones are clearly identified in the consolidated work programme.

Given the magnitude of investment that will inevitably be required to implement the Growth Plan, it will be important that Government and private funding sources are considered together with appropriate cost recovery mechanisms in the form of infrastructure or development contributions. The Implementation Plan identifies these potential alternative funding sources.

The Implementation Plan has been structured to provide a project management tool and outputs that can be actively monitored and updated on a periodic basis (eg. annual) as projects are progressed. All the necessary outputs (cost spreadsheets, programmes, actions plans) will be provided in 'soft' copy format with user commentary to enable the custodian to monitor and update as required.

1.2 APPROACH AND METHODOLOGY

There is a recognition by the ToPH and other key Stakeholders that the success of the Growth Plan is contingent upon having a robust and effective Implementation Plan that is commercially viable, and critically, has the support of key stakeholders and the community.

The Implementation Plan sets out a consolidated framework for the delivery of the necessary spatial and non-spatial projects and programmes at a regional, council-wide and city centre level to facilitate the growth of Port Hedland as it grows to a city with a population of up to 50,000 people.

Specifically, the Implementation Plan includes or has been informed by:

- Scoping and assessment of physical projects;
- Order of Magnitude Costs, where known, for individual projects and discrete programmes of work within the various Growth Plan categories;
- A consolidated (Master) programme showing critical path projects and key interdependencies;
- ♦ Identification of de-constraining actions across the Growth Plan Precincts, sufficient to enable the development cells identified in each of the precincts to become development ready. These actions include relevant statutory and environmental studies and / or approvals, trunk infrastructure planning / upgrades and physical landform studies required;
- Implementation actions documenting key tasks, timing, and responsible parties;
- Risk assessment outcomes;
- Governance framework and structure(s) with roles and responsibilities documented; and
- Funding sources and opportunities for private investment and Infrastructure (or Development) Contribution Schemes.

The Implementation Plan is the document that identifies the relationship between catalytic projects, the responsible or lead agency, timeframe/sequencing for implementation, budgetary allocation (in the first instance this involves identifying an order of costs – incorporation of the project into a corporate delivery programme, followed by the resolution of relevant Business Cases).

Costs provided are 'order of magnitude' only based on information available and provided by the ToPH and government agencies (as contained within Appendix 4). All costs will need to be validated as part of further scoping and detailed planning investigations.

1.3 KEY ASSUMPTIONS

The Implementation Plan, and in particular the timelines associated with the delivery of the projects and programme-constraining activities, are underpinned by a number of key assumptions, namely:

- Detailed site masterplanning and technical investigations may constrain portions of the development cells identified from being developed to their maximum potential;
- A commitment by Government (Cabinet) to an appropriate level of funding to facilitate land acquisition and assembly, environmental studies, infrastructure planning and delivery (including fill management) to facilitate the land release and development needed to meet the housing demand;
- ♦ A commitment by key Government agencies and stakeholders such as Water Corporation, Main Roads WA, Horizon Power and Department of Water to commence as a matter of urgency the necessary infrastructure and planning studies in relation to water supply, wastewater, drainage, power supply and transport projects to support the Growth Plan:
- ♦ The Infrastructure Coordinating Committee (ICC) (refer Governance Framework – refer Section 3.3) adopting a pro-active and on-going role in overseeing delivery and coordinating the planning and provision of infrastructure services to identified growth areas;
- The implementation action time frames provided in this document being utilised as a guide only to demonstrate some of the key long lead items only. Further investigations on the key elements to de-constrain the land are required and with stakeholder/agency support 'fast-tracking' may be possible;
- Adoption of the proposed governance structure without delay and member stakeholders / agencies activated;
- The private sector and key industries being aligned with the Growth Plan and prioritisation of key programmes of work; and
- ♦ The Master Programme and indicative costs being used as a guide only based on desktop review, preliminary discussions with relevant Government agencies, and order of magnitude estimates. The timeframes and costs will require on-going monitoring and validation as each individual project is scoped and planning activities progress.

1.4 RISK ASSESSMENT

A risk assessment has been undertaken to support the Implementation Plan. The risk assessment involved participation by the project team, the ToPH and key stakeholders, in a series of facilitated workshops, with agreed outcomes and mitigation strategies documented in a final report (refer Appendix 3).

1.5 GROWTH MODEL

The ToPH has proven to be a dynamic place, which changes frequently and which is developing at an extremely fast pace. The Growth Plan has been based on the best information available at this time, and as such has certain assumptions built into it that may change over time. For the implementation of the Growth Plan, a dynamic Growth Model has been developed as an important tool for the ToPH as it continues to develop. The Growth Model allows for future manipulation of the Growth Plan to ensure that it can accommodate future changes. This unique planning tool is understood to be the first of its kind in this type of context in Australia and will underpin the future implementation of the Growth Plan.

The Growth Model leverages the existing assumptions and data that have created the Growth Plan. It allows for manipulation of various future characteristics to understand how they will impact other future facets of the Growth Plan. The model will assist the Town to make informed decisions regarding future projects and development and at the same time understand the future repercussions and implications of these decisions. Population and economic stimulus will be the main inputs (which can be used to test a wide variety of future scenarios), which will allow for an understanding of changes to future levels of:

- Land demand (across retail, residential, industrial, commercial and tourist accommodation);
- ♦ Community infrastructure (parks, libraries, recreation centres, sports fields, etc);
- ♦ Infrastructure demand (water, sewer, roads, etc); and
- Economic impacts (GRP, employment, incomes).





2.1 IMPLEMENTATION FRAMEWORK

The Implementation Framework is intended to provide the 'live' tools to plan, coordinate and monitor delivery of the Growth Plan program. The Implementation Framework comprises a number of key elements including the:

- Master Implementation Table (and Action Plan);
- Land Release Strategy; and
- Master Delivery Programme.

The intention is that the Growth Model and Implementation Framework be updated at least bi-annually in response to Port Hedland's dynamic growth environment.

These elements underpin the Implementation Plan and provide the tools to integrate and deliver the key projects required to support the Growth Plan. The framework provides an action plan for delivery of key projects and programmes of work over the following time periods:

- ♦ Immediate: 0 2 year time period;
- ♦ Short term: 3 5 year time period;
- ♦ Medium term: 6 10 year time period; and
- Long term: 10+ year time period.

The Implementation Framework and action plan is based on the best available information today and the input of Government Agencies and stakeholders during the Growth Plan preparation.

Given the external economic factors that influence growth in Port Hedland and Western Australia generally, it is inevitable that circumstances will change and the timing and cost of projects will vary from that identified in the Implementation Plan. For this reason the Implementation Framework, and supporting Growth Model, provides the flexibility to respond to a range of growth scenarios. As the variables change the Framework can be efficiently updated and the resulting priority actions and timeframes assessed.

The intention is that the Growth Model and Implementation Framework be updated at least bi-annually in response to Port Hedland's dynamic growth environment.

The ToPH will be the custodian of the Implementation Framework (and Plan) and take responsibility for the regular monitoring and updating of the tools. This will be reviewed at the Growth Plan Working Group and Taskforce meetings to ensure activation and accountability of responsible agencies and stakeholders.

The Implementation Framework captures and summarises the

actions and initiatives for the various Growth Plan categories in the threefold manner as follows:

- 1. On a Port Hedland (Region/Local Authority) wide basis:
- i. Property and Economics
- ii. Communities and Culture
- iii. Housing and Land Supply
- iv. Environment & Change Adaptation
- v. Infrastructure Capacity
- 2. For Port Hedland related precincts:
 - i. Property and Economics
 - ii. Communities and Culture
 - iii. Housing and Land Supply
 - Actions by Precinct
 - TWA/FIFO Proposals (existing and proposed)
 - Residential Land Supply Targets by Precinct
 - Environment and Change Adaptation
 - iv. Infrastructure Capacity
 - Actions by Precinct
 - * Roads, Footpaths and cycleways
- 3. For South Hedland related precincts:
 - i. Communities and Culture
 - ii. Housing and Land Supply
 - Actions by Precinct
 - TWA/FIFO Proposals (existing and proposed)
 - Residential Land Supply Targets by Precinct
 - iii. Environment and Change Adaptation
 - iv. Infrastructure Capacity
 - Actions by Precinct
 - * Roads, Footpaths and cycleways

No specific initiatives have been identified under the Property and Economics category for South Hedland.

It should be noted that Temporary Works Accommodation/

FIFO facilities (existing and proposed) have been identified in the Implementation Framework primarily for the purposes of providing an audit and reference point for the ToPH and other key government stakeholders when assessing further TWA/FIFO related proposals.

Identifying TWA/FIFO facilities within the overall framework is also intended to provide a context to the overall accommodation needs for the Town.

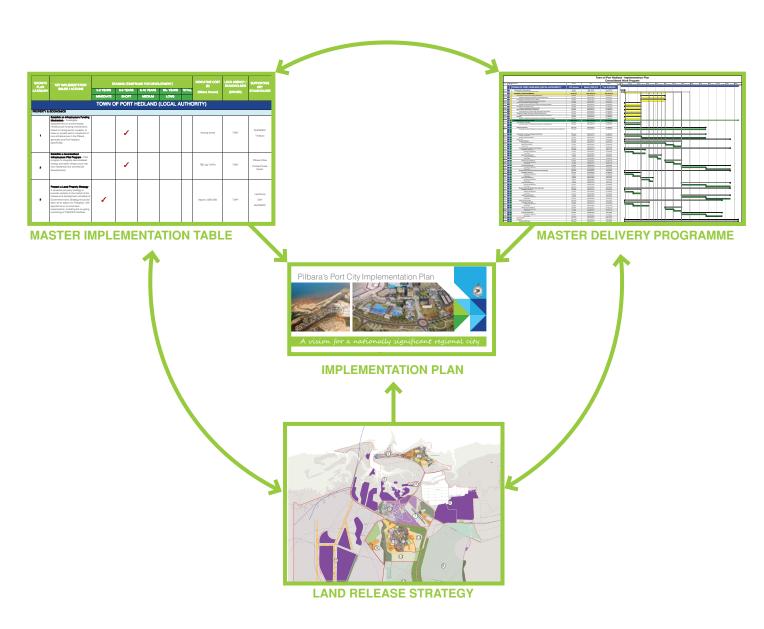


Figure 2.1: Governance Framework

2.2 MASTER IMPLEMENTATION TABLE

The Master Implementation Table (refer Table following) provides a consolidated action plan for all identified projects and programmes of work to support the Growth Plan. The Table identifies all the key projects organised under the Implementation categories (refer Sections 4-8) and provides details on the timing and the Lead Agency / Stakeholder responsible for delivery. Supporting key stakeholders are also identified. Indicative costs (where available) are contained within Appendix 4.

The Master Implementation Table provides the consolidated action plan and project management framework to support the Growth Plan.

2.3 LAND RELEASE STRATEGY

The findings of the Land Release Strategy (refer Section 6) are included in the Implementation Table for completeness and to illustrate the proposed land supply and development timing relative to major infrastructure upgrades and other programmes of work (e.g. Communities and Culture or Environmental).

The Land Release Strategy represents a comprehensive audit of proposed developments (residential) in Port and South Hedland and the likely dwelling yield over the next 0 - 10+ years. The Table provides a description of each project within the relevant Growth Precincts, details of the proponent or land owner (e.g. Government or private), and target land release / development timeframes needed to meet the forecast demand and Growth Plan objectives.

The Department of Housing and LandCorp, plus other Government Agencies, will play a pivotal role in meeting dwelling supply in the immediate to short term in the Port Hedland region. Significant work has progressed and is actively being coordinated and facilitated through Pilbara Cities and the ToPH. Ultimately, the land release and dwelling yield targets can only be achieved with the willing participation and activation of the private sector landowners and developers. Should certain development projects / sites controlled by the private sector not proceed this will impact on the land supply targets and dwelling yields.

Infrastructure capacity constraints continue to pose the single biggest constraint to land release and development in the Port Hedland region. Critically, the Land Release Strategy will provide a tool to enable the Government and Service Agencies to plan and deliver required supply and trunk infrastructure capacity needed.

2.4 MASTER DELIVERY PROGRAMME

A Consolidated Work Delivery Programme has been prepared to support the Implementation Plan and is provided at Attachment 3. The Work Programme was developed in Microsoft Project and is presented in Gantt Chart format. The programme illustrates the target delivery timing for all projects (and their key sub-tasks) and programmes of work identified in the Implementation Plan. Importantly, the Master Programme shows the relative timing and interdependencies between the projects. A milestone of July 2012 has been adopted as the commencement date for the projects.

It should be noted that the Consolidated Work Programme presented is a summary document supported by more detailed work breakdowns.

The Master Delivery Programme is intended to be a live document that is regularly monitored and updated by the Town of Port Hedland as the programme is delivered and circumstances change.

			STA						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
PROPERTY & ECONOMICS (PE)									
PE1	ALL	Establish an Infrastructure Funding Mechanism – Investigate establishment of a bond-based infrastructure funding mechanisms, linked to mining sector royalties, to draw on private sector investment of core infrastructure in the Pilbara generally and Port Hedland specifically.		Prepare and adopt Infrastructure Funding Mechanism report	Implement recommendations			Pilbara Cities	DoP/WAPC Treasury
PE2	ALL	Establish a decentralised Infrastructure Pilot Programme – Pilot programme to integrate decentralised energy and water infrastructure into new residential and commercial developments.	Prepare Infrastructure Pilot Programme Implement recommendations	Implement recommendations				Pilbara Cities	Private Sector
PE3	ALL	Prepare a Development Contributions Plan – Pursuant to WAPC State Planning Policy 3.6 to promote the efficient and effective provision of public and community infrastructure which meets the demands arising from new growth and development.	Prepare Development Contribution Plan Amend Scheme to incorporate DCP	Levy contributions in accordance with DCP requirements	Levy contributions in accordance with DCP requirements	Levy contributions in accordance with DCP requirements		ТоРН	DoP/WAPC Developers
PE4	1 & 2	Native Title Clearances – negotiations need to commence immediately, particularly in the East End if residential development is to occur in a timely fashion.	Commence and complete negotiations					Pilbara Cities	State Land Services

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
PE5	ALL	Implement a split zone R20/R30 Scheme Amendment – Amendment to recode all existing R20 zoned land in South Hedland and Port Hedland to R20/R30. Amendment initiated.	Progress and finalise Scheme Amendment (in progress)					ТоРН	DoP/WAPC DEC/EPA Pilbara Cities
PE6	ALL	Prepare an Integrated Strategic Planning & Reporting Framework – A Corporate Business Plan to provide for agreed levels of funding for Council sponsored initiatives, including:	Prepare and adopt a Strategic Planning and Reporting Framework Plan; Implement recommendations	Implement recommendations	Implement recommendations			ТоРН	Pilbara Cities
PE7	ALL	Marketing Plan Prepare a Strategy to articulate branding and marketing of Port Hedland	Prepare and adopt a Marketing Strategy; implement recommendations	Implement recommendations				Pilbara Cities	LandCorp; ToPH
PE8	ALL	Tourism Strategy— Develop a strategy linking tourism marketing to Branding and the provision of tourism infrastructure		Prepare and adopt Tourism Strategy; Implement recommendations				ТоРН	Pilbara Development Commission Tourism WA

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)				
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER	
			IMMEDIATE	SHORT	MEDIUM	LONG		(DINVER)		
COMMUNITIES	COMMUNITIES AND CULTURE (CC)									
CC1	ALL	Non-Indigenous Heritage - Update of ToPH Municipal Inventory of Heritage Places.		Undertake review of Municipal Inventory of Heritage Places				ТоРН	HCWA DIA	
CC2	ALL	Indigenous Heritage: - Area specific Indigenous surveys conducted on 'as required' basis to identify heritage sites. Any proposed impact on Indigenous sites requires an application under Section 18 (Aboriginal Heritage Act 1972).	Undertake as required	Undertake as required	Undertake as required	Undertake as required		Proponent	DIA Native Title Claimants	
ссз	ALL	Cultural Plan – Develop a Cultural vision that audits existing indigenous and non-indigenous culture and develops shared vision and cultural activation.		Develop and adopt a Cultural Vision Implement recommendations				ТоРН	Pilbara Cities; Department of Culture and the Arts	
CC4	ALL	Public Arts Strategy - Develop a Public Arts Strategy including key themes, locations and procedures		Prepare and adopt the Strategy Implement recommendations				ТоРН	Dept. Culture & Arts	

		KEY IMPLEMENTATION ISSUES / ACTIONS	STA						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT		0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(=1.1.2.1.)	
	Health Care								
	Regional Hospital (60 beds) 11 A Regional level facility providing a broad range of medical services and specialities.								
		broad range of medical services and			1		1		ToPH: Pilbara Development Commission
	ALL	Community Health Centre (900sqm) Offering a core suite of local community health services to match the local population; may include integrated programs with GPs and indigenous medical services	4	1	2	6	13	Government (OSP/BMW/Health Dept); Private Proponent	
CC5 (HEALTH CARE)	ALL	Neighbourhood Community Health Centre (2,000sqm) Offering a core suite of community health services for the local population, including a range of primary and ambulatory programs and outpatient clinics, such as maternal and child health	1	1		2	4		
	ALL	District Community Health Centre (4,000sqm) – offering a similar range of services as the Neighbourhood Health Centre, but with an additional focus on private services eg. pharmacy, allied health, medical clinics	1			1	2		
	2; 10-13	Aged Care (3,200sqm) – offering multiple aged care services (both private and public)	2		1	2	5		

		KEY IMPLEMENTATION ISSUES / ACTIONS	STA						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT		0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
	Law & Order / E	mergency Services			'				
CC6	ALL	Police Station	1		1				Pilbara Cities ToPH
(LAW & ORDER/ EMERGENCY	ALL	Fire Station	1				1	Government (OSP, DMW), WA Police	
SERVICES)	ALL	Ambulance	1				1	St.John's Ambulance; FESA; SES	
	ALL	State SES Unit		1			1		
	Education								
	ALL	Pre-School (450sqm)	5	1	3	7	16	Government (Dept. of Education); Catholic Education Commission; Private Sector	Pilbara Cities
CC7 EDUCATION	ALL	Primary School (3,000sqm)	1	2	1	7	11		
	ALL	Secondary School (4,500sqm)		1		4	5		
	1; 2; 10 & 11	Tertiary Centre of Education for Excellence (ie. Specialist Regional University Campus)		1				Commonwealth and State Government; Private Interests	Pilbara Cities; Pilbara Development Commission; Industry

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(BittivEtt)	
CC8	1; 2; 9-13	Active Open Space Strategy (AOSS) (refer items CC8A – CC8F below for key actions)	Implement Precinct Master Plans	Implement Precinct Master Plans	Implement Precinct Master Plans	Implement Precinct Master Plans		ТоРН	Department of Sport and Recreation Private Sector
CC8A	2	Macgregor Street /Cooke Point Drive Master Plan	Implement Stage 1	Implement Stage 2	Implement Stage 3	Implement Stage 4		ТоРН	Department of Sport and Recreation Private Sector
CC8B	10	Marie Marland Reserve Master Plan	Marie Marland Reserve Master Plan Implement Stage 1	Implement Stages 2 and 3	Implement Stages 4	Implement Stage 5		ТоРН	Department of Sport and Reccreation Private Sector
CC8C	12	Hedland Senior High School Events Space	Implement Stage 1	Implement Stages 2 and 3				ТоРН	Department of Sport and Recreation Private Sector
CC8D	10 & 12	Combined K-12 Campus and District Active Open Space			Implement Stages 1 and 2	Implement Stages 3 and 4		ТоРН	Department of Sport and recreation Department of Education Private Sector
CC8E	12	Collier Drive Developments				Implement all actions		ТоРН	Department of Sport and Recreation Private Sector

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
CC8F	9	Golf and Equestrian Precinct Master Plan	Implement Stage 1	Implement Stages 2 and 3	Implement Stages 4 and 5			ТоРН	Department of Sport and Recreation Private Sector Equestrian Federation
ссэ	1 & 11	Entertainment Facilities Study - Investigation of future entertainment options, including Performing Arts Centre and cinema complex. Draft report received in December 2012.	Adopt Feasibility Study Implement recommendations	Implement recommendations				ТоРН	Pilbara Cities Landcorp
CC10	ALL	Active Transport (Walking and Cycling) Plan – Port Hedland Cycle Plan and Walk-It Hedland	Implement recommendations	Implement recommendations				ТоРН	Department of Sport and Recreation Pilbara Cities
CC11	ALL	Indigenous Reconciliation Action Plan – Prepare RAP	Prepare and adopt Reconciliation Action Plan					ТоРН	ToPH Department of Indigenous Affairs
CC12	ALL	Aboriginal Arts Centre – delivery of Arts Centre facility in line with Aboriginal Arts Development Strategy		Prepare and adopt Feasibility Strategy Commence planning and design Construct Facility				Private Sector	ToPH Dept. Culture and the Arts Arts Industry

			STA	AGING (TIMEFRAMES FO	R DEVELOPMEN	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
CC13	11	Aboriginal Cultural Centre – delivery of Aboriginal Cultural Centre		Prepare and adopt Feasibility Strategy Commence planning and design Construct Facility				Wangka Maya	ToPH Dept. Indigenous Affairs Arts Industry
CC14	5 & 8	Motorsports Facilities Master Plan Options to integrate all motor sport options within a single facility		Prepare and adopt Facilities Plan including site identification options Implement recommendations	Implement recommendations			ТоРН	Confederation of Motor Sports (CAMS)
CC16	1; 2 & 11	Library Services – Relocation of Port Hedland Library		Prepare and adopt Feasibility Study; Planning and design Construction				ТоРН	Pilbara Cities LandCorp State Library WA
CC17	1 & 2	Event Services and Passive Recreational Spaces – Develop dedicated event and passive recreational spaces in West End and Spoilbank (to be integrated and undertaken in conjunction with Coastal/Boardwalk Master Plan)		Prepare and adopt Feasibility Study; Planning and design Construction of facilities/spaces				ТоРН	Pilbara Cities Private Sector Landcorp (Spoilbank)
CC18	1	Cultural Services – Investigate cultural centre for West End that could include Galleries, Office Space and Industrial Tourism/Historical displays	Prepare Feasibility Study	Planning and design				ТоРН	Pilbara Cities Private Sector PHPA
CC19	1; 2; 9-13	Event Development Plan – High Profile Event, featuring international drawcard performer	Prepare and adopt 3 Year Event Development Plan; Present Event by agreement with Promoter	Present Event by agreement with Promoter	Present Event by agreement with Promoter	Present Event by agreement with Promoter		ТоРН	Eventscorp Private Sector

			STAGING (TIMEFRAMES FOR DEVELOPMENT)						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
CC20	1 & 2	Coastal / Foreshore Redevelopment – Integrated Foreshore Master Plan for redevelopment Master Plan from West End to Pretty Pool (including bridge / boardwalk integration)(see also item CC17)	Prepare and adopt Master Plan	Undertake construction	Construction (cont'd)			ТоРН	Pilbara Cities Private Sector
CC21	2	Pretty Pool Reserve – Prepare Master Plan for redevelopment of Reserve / park including commercial facilities		Prepare and adopt Master Plan Undertake construction				ТоРН	
CC22	ALL	Caravan Park – Prepare overall Master Plan and Strategy to Identify variety of potential locations and models	Prepare and adopt Feasibility Study; Construct Facilities as required					ТоРН	Private Sector
CC23	1; 2; 10 & 11	Backpackers Accommodation – Identify location, plan including delivery model	Prepare and adopt Feasibility Study		Construct facilities as required			ТоРН	Tourism WA Private Sector
CC24	2 & 11	Aquatic Facilities – consider future location, Master Plan in Port Hedland		Prepare and adopt Master Plan, including Needs Assessment Construct Facility				ТоРН	Dept. Sport & Recreation Private Sector Commonwealth Agencies

			STA	GING (TIMEFRAMES FO	OR DEVELOPME	ENT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
CC25	11	Library Services – Feasibility Study into library and community centre in South Hedland City Centre. Study to be completed in March 2012.	Prepare and adopt Feasibility Study; Planning and design	Construction				ТоРН	Pilbara Cities
CC26	11	Youth Services - Design and build youth space/skate park in South Hedland City Centre, in accordance with community engagement outcomes	Planning, design and construction					ТоРН	Pilbara Cities Private Sector
CC27	2	Redevelop Civic Centre – Design and build Civic Centre in South Hedland City Centre	Planning and design	Construction				ТоРН	Pilbara Cities Landcorp Private Sector
CC28	11	South Hedland Aquatic Centre (SHAC) – Master Plan for Aquatic Centre	Complete Stage 1 of Master Plan					ТоРН	Pilbara Cities Pilbara Development Commission Private Sector
CC29	12	Cultural Services – Upgrade Matt Dann Cultural Centre (PART OF)	Equipment and infrastructure upgrade, additions to existing facilities including rehearsal room and technical office					ТОРН	Department of Education

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HOUSING & LAI	ND SUPPLY (HLS)								
HLS1	2; 10-13	Alternate Tenure Study and Demonstration Project—Practical study of alternate tenure arrangements for residential housing in ToPH. Include assessment of feasibility of joint tenure, development rental and rent-to-buy and deferred purchase/capital gains sharing arrangements. Implement optimal tenure approach through a demonstration development such as a potential JV arrangement.	Prepare and adopt Study Complete Demonstration Project					LandCorp	ToPH DoH DoP/WAPC Private Sector Treasury Pilbara Cities
HLS2	2; 10-13	Dedicated Community Housing Organisation – Investigate and establish a dedicated community housing organisation vested with Crown land holdings.	Prepare and adopt Feasibility Study	Establish Community Housing Organisation				DoH	ToPH DRDL DoP/WAPC Community Housing Organisations
HLS3	2; 10-13	Home-based Business Strategy and Packs – A comprehensive Home-based Business Strategy for ToPH that supports and facilitates home-based business establishment and growth. Includes development of information pack for newly formed home-based businesses.	Prepare and adopt Strategy	Implement recommendations				CCI	ToPH Pilbara Development Commission

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	ENT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS4	2; 10-13	Medium/High Density Product Business Case – Business case to demonstrate viability of medium and high density residential product, including consideration of construction approach and investment levels	Prepare and adopt Business Case	Implement recommendations				LandCorp	ToPH DoP/WAPC Private Sector
HLS5	2; 10-13	Key Worker Housing Project – development project to provide key worker housing. Locate in South Hedland Town Centre. Deliver through JV arrangement on Crown land site.	Prepare and adopt Business Case	Construct Facility				ТоРН	DoP/WAPC LandCorp Private Sector
HLS6	2; 10-13	Affordable Housing Strategy – Prepare an Affordable Housing Strategy	Prepare and adopt Strategy Implement recommendations					ТоРН	DoH Pilbara Cities
HSL7	ALL	FIFO and Temporary Accommodation Strategy	Implement Stratetgy recommendations	Implement recommendations					
HLS8	2	GP Housing (refer also item HLS17)	Deliver Stage 1 development	Deliver Stage 2				ТоРН	

			STA	AGING (TIMEFRAMES FO	OR DEVELOPME	NT)				
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER	
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)		
RESIDENTIAL LAI	ND SUPPLY TARGET	S BY PRECINCT								
Precinct 1 – "Wo	est End"									
HLS9	Old Hospital site – Sutherland Street and Moore Street	Hotel and Residential Development – Development Application approved on landmark site in the Precinct comprising a hotel and residential complex	178 (hotel rooms) 188 (residential dwellings)				366	Private Sector	ТоРН	
HLS10	Parcel H (All Seasons Hotel)	All Seasons Hotel – identified as medium term landmark mixed use redevelopment opportunity. Master Planning / rezoning required – ToPH, DoP to facilitate redevelopment outcomes Coastal Vulnerability & Flatback Turtle Nesting considerations – DEC to facilitate appropriate redevelopment outcomes.				130		Proponent/ Developer	ТоРН	

			STAC	GING (TIMEFRAMES F	OR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
Precinct 2 – "Ea	st End Urban Village	e"							
HSL11	Parcel I (ToPH Offices)	Toph Offices – identified as long term landmark mixed use redevelopment opportunity. Master Planning / rezoning required – Toph, Dop - to facilitate redevelopment outcomes Coastal Vulnerability & Flatback Turtle Nesting considerations – DEC to facilitate appropriate redevelopment outcomes Opportunity requires considered Toph office relocation planning & feasibility assessment by Toph				115	115	ТоРН	ToPH DoP/WAPC DEC/EPA
HSL12	Parcels J-T, UV, AE, AD, W-Z, AA, AB, AF-AJ (Port Hedland racetrack, WWTP & surrounds)	Land Collectively known as 'East End' Master Plan Area – land for the purposes of short/ongoing residential land supply. Identified as primary urban/residential area in Port Hedland Native Title clearances required Master Planning / rezoning required – ToPH, DoP - to facilitate redevelopment outcomes; Landownership fragmentation to be coordinated towards cohesive development staging/outcomes – DRDL/LandCorp/ToPH	295 (Parcel Z)	250	2770		3315	LandCorp	ToPH DoP/WAPC DEC/EPA DoW WaterCorp Horizon Power

			STAC	GING (TIMEFRAMES	FOR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HSL12 cont'd	Parcels J-T, UV, AE, AD, W-Z, AA, AB, AF-AJ (Port Hedland racetrack, WWTP & surrounds)	Mangrove, Coastal Vulnerability, Heritage & other considerations – DEC to facilitate appropriate redevelopment outcomes; WWTP relocation/remediation required includinremoval of existing buffer; Infrastructure service provision upgrades / trunk infrastructure to be in readiness for project staging; Geotechnical / Fill assessments required to inform final development feasibility / response to coastal vulnerability; Economic Development/Retail assessment required to inform detailed planning of 'East End Neighbourhood Centre' Built Form to reflect Port Hedland vernacular.	295 (Parcel Z)	250	2770		3315	LandCorp	TOPH DoP/WAPC DEC/EPA DoW Water Corp Horizon Power

			STA	AGING (TIMEFRAMES FO					
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE SHORT		MEDIUM LONG			(31111211)	
HLS13	Parcel AO	Detailed site master plan approval required together with scheme amendment to remove WWTP buffer impact (or approvals negotiated); WWTP relocation/remediation required including removal of existing buffer – or substantial progression to negotiate approval – ToPH/ DoP/ WaterCorp to facilitate; Infrastructure service provision upgrades / trunk infrastructure to be in readiness for project staging; Geotechnical / Fill assessments required to inform final development feasibility / response to coastal vulnerability; Built Form outcomes to reflect development solutions / Port Hedland vernacular;		650			650	Proponent/Developer	ToPH DEC/EPA DoW Water Corp Horizon Power
HLS14	Parcel AM (DRDL)	Cooke Point Caravan Park – Medium term mixed use / tourism /residential development opportunity. This landmark mixed use redevelopment opportunity requires: Assessment of Tourism service provision to be accommodated in new development / elsewhere in any feasibility. Currently Aspen run Caravan Park leased from DRDL Master Planning / rezoning required – ToPH, DoP - to facilitate redevelopment outcomes Coastal Vulnerability considerations – DoP to facilitate appropriate redevelopment outcomes			100		100	Pilbara Cities	Aspen ToPH DoP/WAPC

			STA						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	EDIUM LONG		(DRIVER)	
HLS15	Parcel AL &AK (LandCorp)	Pretty Pool Project – remaining southern grouped dwelling site (AL) and 'northern beachfront' site (AK) of established Pretty Pool residential estate. Site readiness for land release required (AL) Site AK requires completion of environmental monitoring (flatback turtles, shorebirds etc) prior to seeking further development consideration by DEC. ToPH/DoP to facilitate AK rezoning / master plan adoption following negotiated DEC assessment outcomes.			140		140	LandCorp	DEC ToPH DoP/WAPC
HLS16	Parcel AC (ToPH)	Rock of Ages – medium term redevelopment opportunity. Site requires Master Planning and approvals Coastal Vulnerability considerations – DoP to facilitate appropriate development outcomes			60		60	ТоРН	DoP/WAPC DEC/EPA
HLS17	Parcel AN	GP Housing - Development Approval granted for residential units	20				20	Proponent/ Developer	ТОРН

			STA	GING (TIMEFRAMES F	OR DEVELOPME	:NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
Precinct 10 – "W	Vestern Edge"								
HLS18	Parcel A & B	Portion of Parcel A sold by Private Treaty to BHP for the purposes of a 430 dwelling unit Key Workers Accommodation Balance land to be developed for residential purposes in medium term	430	540			970	Pilbara Cities	ТоРН
HLS19	Parcel C & D (Compass Group)	Land commonly known as 'Area A – Gateway Village' – awarded to Compass Group by DRDL for the purposes of delivering TWA accommodation. Development approval for 1333 beds Conversion to residential in the short term predicated on early removal of TWA ToPH to facilitate issue of final development approvals DRDL to monitor timely delivery of TWA on site. Compass to progress development program			390		390	Pilbara Cities	ТоРН

			STAGING (TIMEFRAMES FOR DEVELOPMENT)						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS20	Parcels F-H (Auzcorp)	Land commonly known 'Area B – Auzcorp' – awarded to Auzcorp by DRDL for the purposes of delivering permanent residential housing in proximity to the South Hedland Town Centre. Estimate of 400 bed future development Conversion to residential in the short term predicated on early removal of TWA DoP / ToPH to facilitate timely planning approvals under Master Plan for site. DRDL to monitor timely staged delivery of housing on site. Auzcorp to progress development program		335			335	Pilbara Cities	ТоРН

			STA	AGING (TIMEFRAMES F	FOR DEVELOPME	ENT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS21	Parcels I-J & Parcel L (LandCorp)	Land commonly known as 'Site C' — being progressed by LandCorp as part of the "Western Edge" project, together with adjoining land for the purposes of immediate residential land supply. LandCorp to progress immediate due diligence, feasibility and master planning for land (rezoning & structure plan) ToPH, DEC & DoP to facilitate expedited approvals processes DoW to assist in site responsive development outcomes to address fill/flooding challenges Horizon Power, Water Corporation to address infrastructure capacity requirements to ensure delivery program is achieved		395			395	LandCorp	ToPH DoP/WAPC

			STA	AGING (TIMEFRAMES F	FOR DEVELOPME	:NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS22	Parcels M-Y & Parcel AB (LandCorp)	Land being progressed by LandCorp as "Western Edge" project – land for the purposes of immediate residential land supply. LandCorp to progress immediate due diligence, feasibility and master planning for land (rezoning & structure plan) ToPH, DEC & DoP to facilitate expedited approvals processes DoW to assist in site responsive development outcomes to address fill/flooding challenges Horizon Power, Water Corporation to address infrastructure capacity requirements to ensure delivery program is achieved		1640			1640	LandCorp	ToPH DoP/WAPC DoW Horizon Power Water Corp
HLS23	Parcel Z & AA (DRDL)	Future Housing Supply Land - land for the purposes of medium/long term residential land supply. DRDL to progress native title clearance requirements across portion of parcel Z and all of parcel AA in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)				3300	3300	Pilbara Cities	ToPH DoP/WAPC DoW Horizon Power Water Corp
HLS24	Parcel AC	Future Housing Supply Land - land for the purposes of medium/long term residential land supply. Feasibility, Master planning and approvals required (rezoning & structure planning		200			200	Pilbara Cities	ToPH DoP/WAPC DoW Horizon Power Water Corp

		KEY INDI EMENTATION	STAC	GING (TIMEFRAMES F	FOR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
'Precinct 11 –So	outh Hedland City Ce	entre							
HLS25	Parcel A (Humfrey Land Development)	Lot 21 – being developed by Humfrey Land Development following successful LandCorp tender process. Mixed use 2-3 storey development (including 19 commercial units) forecast to commence construction late 2011. LandCorp / ToPH to facilitate remaining site approvals & ready land for construction Humfrey to progress timely construction	105				105	Humfrey Land Development	LandCorp ToPH DoP/WAPC Horizon Power Water Corp
HLS26	Parcel B (Pilbara Health)	Lot 22 – being developed by Pilbara Health for the purposes of mixed use residential accommodation and medical consulting suites. Pilbara Health to progress timely approvals and construction ToPH/LandCorp to facilitate site readiness and approvals	60				60	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp
HLS27	Parcel C & D (LandCorp)	Lots 23-26 – current LandCorp tendered release for mixed use residential development as individual or combined development sites. LandCorp to progress timely conclusion of tender and facilitate immediate site planning and development by nominated developer	160				160	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS28	Parcel E (Pilbara Health /LandCorp)	Lot 303 – existing Pilbara Health site planned for redevelopment for landmark mixed use City Centre project. Pilbara Health / LandCorp to facilitate urgent land transactions to enable land readiness for marketing and development	120				120	Pilbara Health / LandCorp	ToPH Horizon Power WaterCorporation
HLS29	Parcel F LandCorp	ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	50				50	LandCorp	ToPH Horizon Power Water Corp
HLS30	Parcel G (ToPH/ Shopping Centre)	Potential development Site – limited development site envisaged from land rationalisation adjoining new 'main street'. ToPH to facilitate land transactions to enable land readiness for marketing and development		10			10	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp
HLS31	Parcel H-J (LandCorp)	Lots 301/302: Rason Court Mixed Use Development Sites – 3 planned development sites to accommodate immediate high density mixed use development. LandCorp to facilitate land transactions to enable land readiness for marketing and development		450			450	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp

			STA	AGING (TIMEFRAMES FO	OR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS32	Parcel K (LandCorp)	Lots 309/310: Landmark development site (cnr Throssell & Hamilton) - planned for major landmark development site ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	160				160	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp
HLS33	Parcel M (Police)	Lots 301 & 6106 cnr Throssell & Hamilton – planned land release for 'town centre' zone uses	20				20	Proponent/ Developer	ToPH DoP/WAPC Horizon Power Water Corp
HLS34	Parcels N & O (LandCorp)	Cnr Forrest Circle and Murdoch Drive – planned land release ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	25				25	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp
HLS35	Parcel P (LandCorp)	End of Rason Court -ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development			300		300	LandCorp	ToPH DoP/WAPC Horizon Power Water Corp

			STAC	GING (TIMEFRAMES	FOR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
'Precinct 12 –So	uth Hedland East'								
HLS36	Parcels A & B (Cedar Woods)	Parker Street- land being progressed for immediate residential housing supply by Cedar Woods as successful development party to DRDL tender. DRDL to facilitate timely land transaction arrangements for development readiness ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program Cedar Woods to progress timely development			140		140	Cedar Woods	ToPH DoP/WAPC Horizon Power Water Corp
HLS37	Parcel C	Paton Road – land being progressed for immediate development by Developer ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program			12		12	Proponent/ Developer	ToPH DoP/WAPC Horizon Power Water Corp

			STA	AGING (TIMEFRAMES FO	OR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS38	Parcel D (DoH)	College Court - land being progressed for short term development by DoH Negotiations under way for DoH to secure site from Department of Training				154	154	DoH	ToPH DoP/WAPC Horizon Power Water Corp
HLS39	Parcel E	Lawson Street – land to be progressed for immediate residential affordable housing project. DRDL to facilitate timely land transaction arrangements for development readiness. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development. Infrastructure agencies to facilitate service capacity in line with required development program.			39		39	DRDL	ToPH DoP/WAPC Horizon Power Water Corp

			STA	GING (TIMEFRAMES FO	R DEVELOPME	NT)				
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	OTARLITOLDER	SUPPORTING STAKEHOLDER	
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)		
HLS40	Parcel F (KMD Joint Venture)	Land commonly known as Site K – being progressed for subdivision and development by KMD Joint Venture – for short term housing. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development. Infrastructure agencies to facilitate service capacity in line with required development program.	150				150	KMD Joint Venture	ToPH DoP/WAPC Horizon Power Water Corp	
HLS41	Parcels H-K (Jaxon)	Former Koombana School site - land being progressed for immediate residential housing supply by Jaxon as successful development party to DRDL tender. DRDL to facilitate timely land transaction arrangements for development readiness ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program Jaxon to progress timely development			210		210	Jaxon	ToPH DoP/WAPC Horizon Power Water Corp	

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	:NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS42	Parcel L (DoH)	Masters Way - land being progressed for immediate residential housing supply by DoH ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program		51			51	DoH	ToPH DoP/WAPC Horizon Power Water Corp
HLS43	Parcels M, N, S- V & W (DoH)	Cottier Drive (Zoned Land) - land zoned for immediate/short term residential subdivision and development. Master planning commenced under direction of Department of Housing, including 15ha site allocated for Key Worker accommodation. DoH to progress feasibility and structure plan ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress timely staged development		350 (+ 340 Key Worker sites)			690	DoH	ToPH DoP/WAPC Horizon Power Water Corp

			STAG	ING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS44	Parcel O-R, T & X-Z (DoH)	Cottier Drive (Rural Land) - land requiring rezoning for short-medium residential subdivision and development. Master planning commenced under direction of DoH. Land affected by buffer to ToPH landfill site to immediate east of North Circular Road (landfill relocation required). DoH to progress feasibility, rezoning and structure plan ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress timely staged development			995		995	DoH	ToPH DoP/WAPC Horizon Power Water Corp

			STA	AGING (TIMEFRAMES	FOR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
HLS45	Parcels AA & AB (DoH)	Trumpet Way – 'Trumpet' Development being progressed under direction of DoH. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress timely staged development		200			200	DoH	ToPH DoP/WAPC Horizon Power Water Corporation
HLS46	Parcel AC (DoH)	Cottier Drive - being progressed under direction of DoH. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress staged development		100			100	DoH	ToPH DoP/WAPC Horizon Power Water Corporation

			STA	AGING (TIMEFRAMES	FOR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
'Precinct 13 – Ea	stern Gateway'								
HLS47	Parcel A & B (DRDL)	Eastern Gateway Future Housing – land for the purposes of medium/long term residential land supply. DRDL to progress parcel areas in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)			600		600	Pilbara Cities	ToPH DoP/WAPC Horizon Power Water Corporation
HLS48	Parcels C, D & G (DRDL)	Eastern Gateway Future Housing – land for the purposes of medium/long term residential land supply. DRDL to progress parcel areas in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)			700	100	800	Pilbara Cities	ToPH DoP/WAPC Horizon Power Water Corporation
HLS49	Parcels E & F (DRDL)	Eastern Gateway Future Housing — land for the purposes of medium/long term residential land supply. DRDL to progress land transactions in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)				1250	1250	Pilbara Cities	ToPH DoP/WAPC Horizon Power Water Corporation

		KEY IMPLEMENTATION	STA	AGING (TIMEFRAMES	FOR DEVELOPME	ENT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	TOTAL LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
TEMPORARY W	ORKER'S ACCOMMO	DDATION (PROPOSED)							
HLS50	6	The Landing Development approval in 2011 for 282 beds. Estimated 736 beds in future stage	282	736			1018		
HLS51	7	Compass Port Haven Development approval pending in 2011 for 608 beds	608				608		
HLS52	10	Auzcorp Mia Mia Development approval in 2011 for 63 beds	63				63		
HLS53	12	Mineral Resources Airport Camp Estimated 500 bed facility in future development	500				500		
HLS54	10	FMG Club Hamilton Development approval in 2011 for 444 beds.	444				444		
HLS55	10	Gateway Village (Area A) Development approval in 2011 for 1333 beds	1333				1333		
HLS56	7	BHPIO – Airport Precinct Business Plan Approval in 2012 for 4,000 beds	4,000				4,000		

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
ENVIRONMENT	& CHANGE ADAPTA	ITION (ECA)							
ECA1	ALL	Terrestrial Fauna Studies – To assess potential impact upon terrestrial fauna.	Field work, reporting and implementation of recommendations	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation		Proponent/ Developer	ToPH DEC/EPA
ECA2	ALL	Terrestrial Flora and Vegetation Studies – To assess potential impact upon terrestrial flora and vegetation.	Field work, reporting and implementation of recommendations	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation		Proponent/ Developer	ToPH DEC/EPA
ECA3	ALL	Water Management Strategies (DWMS/LWMS) - Required when undertaking scheme amendments for highly constrained precincts and for managing storm surge/flooding events	Field work, reporting and implementation of recommendations	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation		Proponent/ Developer	DoW ToPH DoP/WAPC
ECA4	ALL	Urban Water Management Plans – To be prepared as part of subdivision proposals	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation		Proponent/ Developer	DoW ToPH DoP/WAPC
ECA5	ALL	Marine Fauna Studies – To assess potential impact upon marine fauna. To be undertaken as required	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation		Proponent/ Developer	ToPH DEC/EPA
ECA6	ALL	Light Spill Studies - Identifying management strategies to avoid or minimise any potential impacts to the marine turtle habitat on Cemetery and Pretty Pool Beaches Studies have been commissioned by LandCorp for parts of East End.	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation	Field work, reporting and implementation		Proponent/ Developer	ToPH DEC/EPA

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
INFRASTRUCTUE	RE CAPACITY (IC)						'		
IC1	ALL	Fill Strategy – Strategy completed; commence engagement with Private Sector to identify alternative fill opportunities eg. mine site overburden; new fill extraction opportunities	Undertake negotiations on potential fill sources	On-going negotiations on potential fill sources				LandCorp	ToPH DoP/WAPC DEC/EPA Private Sector
IC2	ALL	Public Transport Strategy Tourist bus – 'hop-on hop-off'- subsidy for operation to be considered	Prepare and adopt Strategy; Implement recommendations	Implement recommendations				ТоРН	ToPH MRWA PTA
IC3	ALL	Traffic Forecasting and Planning Study - Develop a traffic model and undertake traffic study for the ToPH (on-going on a Precinct by Precinct basis)	Prepare and adopt Study; Implement recommendations	Update study and implement	Update study and implement	Update study and implement		ТоРН	MRWA
IC4	ALL	Water and Wastewater Supply Strategy – Supply Strategy completed	On-going monitoring					Water Corp	ToPH DoP/WAPC DoW

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
IC5	ALL	Expansion of Yule and DeGrey River borefields and associated infrastructure	Expansion activities underway	On-going expansion activities				Water Corp	ToPH DoW
IC6	ALL	Investigation and establishment of West Canning Basin borefield	Complete Investigation and Feasibility Study	Planning and design	Construction			Water Corp	ToPH DoW
IC7	ALL	Upgrade distribution infrastructure (trunk mains/water tanks/water tower) to meet demands for 2016	Planning and design	Construction				Water Corp	ToPH DEC/EPA
IC8	ALL	Upgrade distribution infrastructure (trunk mains/water tanks/water tower) to meet demands for 2026 – Planning Study completed	Design		Construction			Water Corp	ToPH DEC/EPA

			STA	AGING (TIMEFRAMES FO	OR DEVELOPMEN	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
IC9	2; 9	Decommissioning of Port Hedland WWTP and upgrading of South Hedland WWTP including associated infrastructure and remediation Parallel staging of Delivery Plan	Planning (underway)	Complete flow diversion	Complete construction works			Water Corp	ToPH DEC/EPA
IC10	7	Upgrade and redevelopment of the Airport	Planning and design Commence upgrade	Complete upgrade and redevelopment				ТоРН	DoP/WAPC Water Corp Horizon Power DEC/EPA MRWA
IC11	ALL	Power and Gas Supply Strategy – Discussions with Horizon Power and Gas Authority on planning, supply and easement requirements	On-going Engagement					Horizon Power Epic Energy	ToPH DoP/WAPC APA Utility Providers
IC12	3; 5-8; 15 & 16	Industry Gas Supply - Gas to be provided on a user requirement basis to industrial applications of sufficient size	Only as end user requires					Epic Energy	АРА

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
IC13	ALL	Communications - Ensure NBN Co. is advised of all new and infill developments across Port Hedland	On-going Engagement and dialogue	On-going engagement and dialogue	On-going engagement and dialogue	On-going engagement and dialogue		NBN Co.	ToPH Telstra Utility Provide
IC14	ALL	Interim Infrastructure - Consider interim infrastructure solutions to enable development to proceed such as integrated pre-packaged water and wastewater treatment facilities, temporary water bores, gas bottles and solar for energy.	Investigate and finalise interim infrastructure options	Construct interim infrastructure				Water Corp	ToPH Private Sector
IC15	ALL	Use of TWA/Short Stay treated water for non-potable purposes (e.g. dust control, construction water)	Planning Management Plans and Construction					Water Corp	Private Sector
IC16	ALL	Freight Transport Strategy – Monitor and augment existing plans as required Interface with air freight/road/port supply chains	Prepare and adopt Strategy Implement recommendations	Implement recommendations on an on-going basis				Department of Transport	ToPH DoP MRWA Port Authority
IC17	10	ToPH Landfill Site – Feasibility/Technical Study required to consider options for relocation (to Newman Turn- off)	ToPH Landfill Site Feasibility/Technical Study to consider options for relocation (to Newman Turn- off)	Post closure works Establish new landfill facility				ТоРН	DEC/EPA

			STA	GING (TIMEFRAMES FO	OR DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
IC18	10-13	South Hedland Underground Power Project	Planning and Design Implementation					Horizon Power	Horizon Power
IC19	ALL	Interim Infrastructure - Consider interim infrastructure solutions to enable development to proceed such as integrated pre-packaged water and wastewater treatment facilities, temporary water bores, gas bottles and solar for energy.	Investigate and finalise interim infrastructure options	Construct interim infrastructure				Water Corp	ToPH Private Sector
IC20	2	Civic Centre Upgrade – undertake upgrade of existing Civic centre to accommodate an additional 100 staff (approx.)	Planning and design Construction					ТоРН	
IC21	10-13	South Hedland Detention Basin Strategy	Prepare and adopt Strategy Implement recommendations					ТоРН	Water Corp DoW DEC/EPA

			STA	GING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
INFRASTRUCTUR	RE IMPLEMENTATIO	ON ACTIONS BY PRECINCT							
IC22	1	Wastewater Infrastructure – Upgrade of wastewater reticulation to precinct currently underway (March 2013 proposed completion date)	Construction					WaterCorp	ToPH LandCorp
IC23	15	Water Infrastructure – Plan, design and construct water trunk main from South Hedland to Boodarie to enable supply in line with growth objectives.	Planning and design		Construction			WaterCorp	ToPH DoP/WAPC WaterCorp
IC24	1	Power - Commence preliminary planning and design for electricity supply from new substation for Precincts 1 & 2. Consideration to be given to shared trench arrangements with gas / communications.	Planning and design	Construct Sub-station				Horizon Power	ToPH DoP/WAPC Utility Providers
IC25	3	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives. Peak power requirements forecasted. Investigations and studies by Horizon Power &/or others will be required.	Prepare Feasibility Studies	Planning and design				Horizon Power	ToPH Utility Providers
IC26	4	Power– Plan, design and construct infrastructure to enable supply in line with growth objectives.	Prepare Feasibility Studies	Planning and design Construction				Horizon Power	ToPH Utility Providers

			STA	GING (TIMEFRAMES FO	OR DEVELOPME	ENT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
IC27	5	Power– Plan, design and construct infrastructure to enable supply in line with growth objectives.	Prepare Feasibility Studies	Planning and design Construction				Horizon Power	ToPH Utility Providers
IC28	6	Power – Upgrade existing Wedgefield Zone Substation. Horizon Power to install 3rd transformer in Wedgefield zone substation.	Planning and design	Construction				Horizon Power	ToPH Utility Providers
IC29	7	Power – Plan, design and construct new zone substation for precinct. New zone substation urgently required.	Planning and design	Construction				Horizon Power	ToPH Utility Providers
IC30	9	Power– Plan, design and construct infrastructure to enable supply in line with growth objectives.						Horizon Power	ToPH Horizon Power Utility Providers
IC31	10	Power - Commence preliminary planning and design for electricity supply from new substation. Consideration to be given to shared trench arrangements with gas / communications. New zone substation urgently required.	Planning and design	Installation				Horizon Power	ToPH Horizon Power Utility Providers
IC32	11	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives. In conjunction with Precinct 7 & 10. New zone substation required urgently	Planning and design	Installation				Horizon Power	ToPH Horizon Power Utility Providers

			STAGING (TIMEFRAMES FOR DEVELOPMENT)						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
IC33	12	Power – Commence preliminary planning and design for electricity supply from new substation. Consideration to be given to shared trench arrangements with gas / communications. Power to be utilised from nearby Murdoch Z/S & new Z/S installed.		Planning and design				Horizon Power	ToPH Horizon Power Utility Providers
IC34	13	Power – Plan, design and construct infrastructure to enable supply in line with growth objectives.		Planning and design (of new feeders from new zone substation)	Construction (of new feeders from new zone substation)			Horizon Power	ToPH Horizon Power Utility Providers
IC35	14	Power – Plan, design and construct infrastructure to enable supply in line with growth objectives.			Planning and design			Horizon Power	ТоРН
IC36	15	Power– Plan, design and construct infrastructure to enable supply in line with growth objectives. Peak power requirements forecasted. Investigations & studies by Horizon Power &/or other parties will be required	Feasibility Studies	Planning and design				Horizon Power	ToPH Horizon Power Utility Providers
IC37	9 & 10	Drainage – The existing outfall from South Hedland to South Creek may potentially be used as a non-potable supply that will ease pressure on the existing potable system. This outfall should be investigated as part of a broader integrated water strategy.	Prepare Integrated Water Strategy	Planning and design	Construction			Water Corp	ToPH DoP/WAPC DoW DEC

			STA	AGING (TIMEFRAMES FO	R DEVELOPME	NT)			
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM LONG			(DRIVER)	
IC38	16	Remote Community Infrastructure — Plan an infrastructure strategy for remote communities (eg. Yandiyarra) including roads, water, sewerage, utilities and associated services. This should consider alternative infrastructure solutions (i.e. gas bottles for cooking, solar for heating, satellite communications, pre=packaged water / wastewater treatment etc.).	Prepare Strategy	Planning and design	Construction			ТоРН	DoP/WAPC WaterCorp Horizon Power Utility Providers
IC39	16	Coastal Access opportunities	Advocacy and negotiation	Advocacy and negotiation				ТоРН	
IC40	1	Multi-Storey Carpark – construction of multi-storey carpark in the West End to accommodate future growth			Planning and Design Construction			ТоРН	
IC41	11	Mulit-Storey Carpark construction of multi-storey carpark in South Hedland CBD to accommodate future growth	Planning and Design Construction					LandCorp	ТоРН

			ST						
GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
ROADS									
IC42	1	Anderson Street -Upgrading to two lanes in each direction (throughout Precinct 1 and 2).		Planning and design	Construction			ТоРН	
IC43	1 -5	Wilson Street/Port Access Road - Upgrading to two lanes in each direction	Planning and design	Construction				MRWA	ТоРН
IC44	2	Athol / McGregor Street- Upgrading to two lanes in each direction.	Planning and design	Construction				ТоРН	
IC45	2	Cooke Point Drive - Upgrading to two lanes in each direction.	Planning and design	Construction				ТоРН	
IC46	6 & 7	Great Northern Highwa y - New proposed links onto the realigned and existing Great Northern Highway (acceleration and deceleration lanes in Precincts 6 and 7)		Planning and design	Construction			MRWA	ТоРН
IC47	6	Wedgefield Estate - New access roads	Planning and design	Construction				ТоРН	

	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	STA						
GROWTH PLAN THEME			0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG			
IC48	7	New Airport roads designed to heavy vehicle standard (Precinct 7)	Planning and design	Construction				ТоРН	
IC49	3-5	Redbank (Bridge) Duplication	Planning	Design and Construction				MRWA	ТоРН
IC50	8	Pippingarra Road - Upgrade to a sealed road		Planning and design	Construction			ТоРН	
IC51	9 & 10	Shoata Road - Upgrade to a sealed road		Planning and design	Construction			ТоРН	
IC52	9-11	Great Northern Highway to Forrest Circle – new connection		Planning and design	Construction			ТоРН	
IC53	10 & 11	North Circular Road - dual lanes between Hamilton and Wallwork Roads and extension around the west of South Hedland	Planning and design	Construction				ТоРН	
IC54	12	Masters Way - extension		Planning and design	Construction			ТоРН	

	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	STA						
GROWTH PLAN THEME			0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG			
IC55	10	Hamilton Road - upgrading to two lanes in each direction			Planning and design	Construction		ТоРН	
IC56	12	Hamilton Road - dualing between Somerset and South Hedland High School upgrading to two lanes per direction by 2026.	Planning and design Construction					ТоРН	
IC57	11	Forrest Circle - upgrading to two lanes in each direction	Planning and design	Construction				ТоРН	
IC58	12	Murdoch Drive - upgrading to two lanes in each direction	Planning and design	Construction				ТоРН	
IC59	10 & 12	Wallwork Road & Bridge - upgrading to two lanes in each direction	Planning and design; Construction					ТоРН	
IC60	12	Osprey Drive - extension		Planning and design	Construction			ТоРН	
IC61	9	Quartz Quarry Road - Upgrade to a sealed road (access route)		Planning and design	Construction			ТоРН	

	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	STA						
GROWTH PLAN THEME			0-2 YEARS	3-5 YEARS	6-10 YEARS	10+ YEARS	TOTAL	LEAD AGENCY / STAKEHOLDER	SUPPORTING STAKEHOLDER
			IMMEDIATE	SHORT	MEDIUM	LONG		(DRIVER)	
FOOTPATHS ANI	FOOTPATHS AND CYCLEWAYS								
IC62	1	Sutherland Street - Off road coastal shared path	Planning and design	Construction				ТоРН	
IC63	1	Anderson Street -Off road or segregated cycle facilities	Planning and design	Construction				ТоРН	
IC64	2	Athol Street - Off road or segregated cycle facilitie	Planning and design	Construction				ТоРН	
IC65	2	Pedestrian Bridge linking Cooke Point - Pretty Pool	Planning and design	Construction				ТоРН	
IC66	1	Wedge Street - cycle lanes	Planning and design	Construction				ТоРН	
IC67	1	Edgar Street - cycle lanes	Planning and design	Construction				ТоРН	
IC68	1	McKay Street - cycle lanes along	Planning and design	Construction				ТоРН	

	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	STAC						
GROWTH PLAN THEME			0-2 YEARS IMMEDIATE	3-5 YEARS SHORT	6-10 YEARS	10+ YEARS LONG	TOTAL	LEAD AGENCY / STAKEHOLDER (DRIVER)	SUPPORTING STAKEHOLDER
					MEDIUM				
IC69	1	Acton Street - cycle lanes	Planning and design	Construction				ТоРН	
IC70	1	Howe Street – cycle lanes	Planning and design	Construction				ТоРН	
IC71	9-11	Great Northern Highway to Forrest Circle) - off-road or segregated cycle facilities along the new road (connecting to the community and open space facilities	Planning and design	Construction				ТоРН	
IC72	10	Off road or segregated cycle facilities along all local distributor roads	Planning and design	Construction				ТоРН	
IC73	11	Off road or segregated cycle facilities along all local distributor roads	Planning and design	Construction				ТоРН	
IC74	12	North Circular, Murdoch, Collier Drive – off road segregated cycle facilities along all local distributor roads	Planning and design	Construction				ТоРН	
IC75	13	Murdoch Drive extension - off road or segregated cycle facilities along	Planning and design	Construction				ТоРН	
IC76	13	Osprey Drive - cycle lanes	Planning and design	Construction				ТоРН	





GOVERNANCE AND FUNDING

3.1 GOVERNANCE & ACCOUNTABILITY

Major obstacles to the growth of the Port Hedland region include the lack of infrastructure capacity (water, sewer, power and transport), with the timely planning and delivery of key infrastructure playing an important role in the delivery of projects and housing supply. The infrastructure constraints, including the lack of commercially viable fill sources for development has severely impacted upon the availability and affordability of residential land.

Due to the diverse nature of industry and business and associated stakeholders in the region, a central authority should be empowered to coordinate, champion and facilitate industry attraction and economic growth and land supply across the Port Hedland region.

The central authority will drive a 'whole of government' approach to delivery to provide the necessary oversight and governance of the Implementation Plan.

The Pilbara Cities Office (Pilbara Cities) has been established as the agency to drive and facilitate the delivery process and implement the Pilbara Cities 'Vision'.

There is already considerable momentum on coordination, planning and delivery of projects through Pilbara Cities, ToPH, and other Government Agencies such as LandCorp and the Department of Housing. The Implementation Plan recognises the existing governance arrangements and reporting structures and seeks to reinforce and augment where appropriate.

The Implementation Plan recognises the pivotal role of Pilbara Cities and strongly endorses the continuation of this agency's role in securing the necessary funding for the projects and programmes identified in the Implementation Plan, and in brokering the outcomes required to fast track the de-constraining of the major obstacles and challenges identified in both the Growth Plan and Implementation Plan.

The lead agency identified must be able to function as the central point from which agreed policies and funding strategies (as identified in the Growth Plan) are actioned.

While the Implementation Plan recognises the primacy of the Pilbara Cities Office as the logical 'regional' authority, it needs to be supported closely by the various 'champions' for economic development (Pilbara Development Commission), heavy and strategic industry development (Department of State Development) and residential development (LandCorp, Department of Housing and the ToPH).

From an operational viewpoint, delivery of the various projects and programmes will need to be coordinated by a Working Group comprising key stakeholders, including the ToPH.

At the very least, funds to be disbursed by Pilbara Cities will need to include monies for the ToPH to substantially augment its staff resources in order to manage the roll out of the various programmes. Potentially, this might extend to funding the establishment of a dedicated Working Group within the Council

whose primary role will be to implement the programmes and projects identified in the Implementation Plan.

It is not proposed that the Implementation Plan require the creation of a new or separate administrative structure. Rather, through Pilbara Cities oversight, the delivery of projects will be achieved under existing State, Local Government and corporate portfolios. In turn, this will be facilitated by the establishment of new or expanded teams comprising key operational staff from appropriate State, ToPH and corporate agencies that will work together to achieve the outcomes identified in the plan.

Many projects will have more than one agency responsible for overall implementation. It is therefore necessary to nominate the lead agency for its effective implementation. This does not mean that supporting agencies can assign their operational responsibilities to the lead agency.

It is proposed that budgetary allocations for administrative activities be contained within existing operational expense accounts. Capital expenditure for the development of business cases, operational works and unfunded projects should be distributed across administrative structures to the organisation best located and resourced to efficiently and effectively implement the identified actions.

The governance structure requires organisational commitment to the execution of the plan; a willingness to communicate, agreement to budgetary allocations and an understanding that the plan is a long term commitment that may require modification to respond to unforeseen outcomes and changes in circumstances. Further there also needs to be a commitment that the most appropriate agency will undertake operational tasks to maximise efficiency and effectiveness. This may require a partial redistribution of budgets, resources, intellectual property, and in some cases allocation/secondment of personnel to facilitate the timely, efficient and effective achievement of actions. It is recognised that this approach comes with certain risks:

- allocation of cross agency responsibility;
- management and auditing of budgets;
- management of operation works; and
- accountability.

With all of this is an underlying recognition of the crucial role that the private and resources sector will continue to play in the economic growth of Port Hedland. Their role in helping to shape and execute the delivery of key infrastructure projects and community amenity programmes in the region, and their financial contribution to ensuring the viability of these projects and programmes cannot be understated.

3.2 STAKEHOLDER ENDORSEMENT

This Implementation Plan has been prepared having regard to extensive government agency, industry and community awareness and concurrence. In addition, a broad spectrum of key stakeholders, including state agencies and infrastructure corporations have participated in and critically analysed the direction, content and formulation of the Growth Plan. These government stakeholders include:

- ♦ ToPH;
- LandCorp;
- Department of Planning/WAPC;
- Department of State Development;
- Department of Water;
- Water Corporation;
- Horizon Power:
- Department of Environment and Conservation;
- Office of Pilbara Cities;
- Department of Housing; and
- Main Roads WA

In support of the production of the Growth Plan and Implementation Plan, comprehensive studies and investigations were undertaken across the following disciplines:

- ♦ Town Planning and Urban Design;
- Economic Development;
- Property Analysis;
- Sustainability;
- Landscape Architecture;
- Civil Engineering;
- Environment;
- Indigenous and Non-Indigenous Heritage;
- Stakeholder and Community Engagement;
- Traffic and Transport; and
- Community Development and Place Making.

The compilation of these reports have had targeted as well as general community participation, input and comment.



3.3 **GOVERNANCE FRAMEWORK**

It is considered that the risks identified in Section 3.1 can be managed through an agreed Governance Framework. The proposed approach is outlined in Figure 3.1.

The Governance Framework recognises the primacy of Pilbara Cities and the responsible Minister (for Regional Development and Lands) in coordinating and facilitating the delivery of the various projects and programmes, supported by a high level Taskforce comprising the CEO and Directors General of key Government agencies. In addition, the framework proposes the establishment of an Implementation Working Group, with responsibility for overseeing the necessary operational requirements, and facilitating the 'de-constraining' actions required for the delivery of development ready land.

The Governance Framework proposes that this Working Group be chaired by the ToPH, supported by representatives from the key servicing agencies and delivery agencies, notably Pilbara Cities, LandCorp and Department of Housing.

The Governance Framework also acknowledges the critical role to be played by the WA Planning Commission (Pilbara Region Planning Committee) in expediting the necessary planning and other statutory approvals associated with the delivery of projects.

While the suggested framework represents a baseline approach to governance, it should remain flexible and be adapted to reflect the complexity of the respective projects.

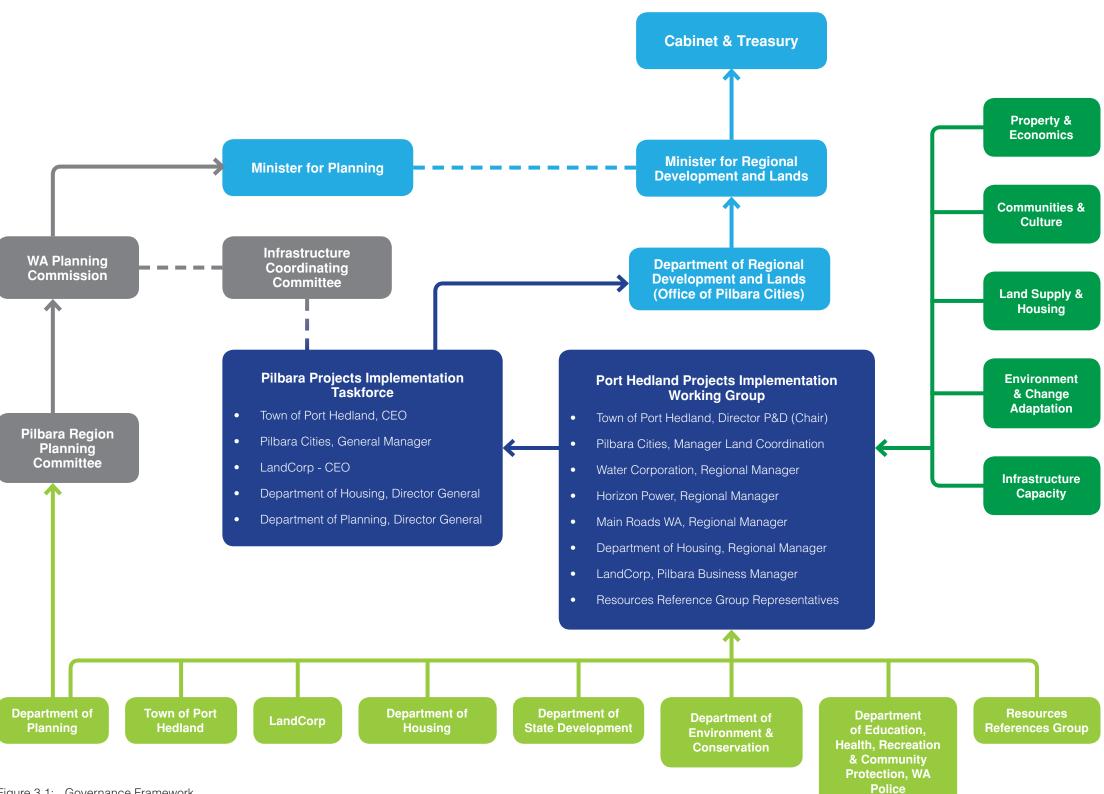


Figure 3.1: Governance Framework

GOVERNANCE AND FUNDING

3.4 ROLES AND RESPONSIBILITIES

The anticipated roles and responsibilities of the key stakeholders identified in delivering the Implementation Plan is outlined in the following table:

Office of Pilbara Cities	To lead and direct the management and strategic direction of the work being done to revitalise the Pilbara; oversee the Royalties for regions funding
ТоРН	To coordinate and facilitate all approvals processed at the local level across the municipality, and provide coordinated feedback to the Projects Implementation Group.
LandCorp	To assist in the implementation strategy, delivery, marketing and promotion of key Growth Plan projects across Port and South Hedland.
Department of Housing	To assist in the implementation strategy, delivery, marketing and promotion of key residential estates across Port and South Hedland and delivery and facilitation of Affordable Housing Initiatives.
Pilbara Development Commission (PDC)	To coordinate, champion and facilitate industry attraction and economic growth and land supply across the Pilbara region.
Pilbara Region Planning Committee (SWRPC)	On behalf of the WA Planning Commission, to provide the necessary statutory approvals, facilitate and coordinate development outcomes and resolutions between the Department of Planning, ICC and the Port Hedland Projects Implementation Group.
Department of Environment and Conservation (DEC)	To assist in the provision of information, planning, approvals and development strategies relating to environmental aspects for all sites by having representation on the Projects Implementation Group.
Servicing Agencies (i.e. WaterCorp/MRWA/Horizon Power/Telstra)	To assist in the provision of information, planning, and development strategies relating to infrastructure for all sites by having representation on the Projects Implementation Group.
Department of State Development	Lead investigations and strategy along with coordination of other agencies for heavy/strategic industrial development at Boodarie
Drivete Contacting durature	To actively participate in the governance framework and Working

Figure 3.2: Anticipated Roles and Responsibilities

Group (via representation), and

support the delivery of the projects

and programmes

3.5 PARTNERSHIPS

The multi-faceted nature of Port Hedland's future transformation will require the establishment and continuation of strong partnerships across all aspects of the Growth Plan's implementation. This includes partnerships between all levels of Government, Government agencies, development organisations and regional associations, industry and community groups.

A number of positive partnerships have already been established, most notably the partnership between the ToPH and BHPBIO. The ToPH has also established partnerships with the other miners (e.g. Atlas, FMG, Hancock Prospecting), as well as longstanding relationships with indigenous and community groups.

Maintaining positive relationships with industry over the life of the Growth Plan will be critical in facilitating the successful delivery of the projects and programmes. For the resources sector in particular those partnerships:

- Enable resources proponents to engage and work with communities to preserve their way of life;
- Enable them to spend money for the benefit of the local community in a structured way;
- Deliver tangible outcomes for the community and the ToPH and manages community expectations; and
- Facilitate the creation self-sustaining communities during construction, operation, decommissioning and beyond.

3.6 FUNDING SOURCES

The growth of Port Hedland will require funding from a range of sources. There is strong potential for State and Federal Government funding of enabling infrastructure and catalytic projects through programmes such as Royalties for Regions. This funding reflects the disproportionately large contribution Port Hedland makes to the Western Australian and national economies, necessitating investment in the public interest.

There have been significant contributions from the private sector and local industries in recent years to community and social infrastructure. For example, BHPBIO has made substantial financial contributions to the Multi Purpose Recreation Centre and Marquee Park in South Hedland, upgrades to the Aquatic Centre and Cemetery Beach Park. Both Government and private investment will need to continue and increase to realise the objectives of the Growth Plan.

Innovative funding mechanisms to support Port Hedland's long-term transformation are required, in addition to Government funding. Such an approach is critical to reducing the long-term fiscal burden on all levels of Government in facilitating economic and population growth and leverage funding from investment and superannuation funds, developers and community organisations. Potential alternate funding mechanisms include:

- ♦ Infrastructure and Development Bonds long-term bonds linked to increased Local and State Government revenues resulting from growth in Port Hedland, to attract upfront investment from superannuation and investment funds;
- Direct Private Sector Investment across all sectors of the economy including accommodation, health, education and infrastructure:
- Developer Contributions on infrastructure items where there is clear and demonstrable benefit to the landholder/ developer and where the contribution burden does not undermine project viability;
- ◆ Tax Increment Finance or Benefit Area Levies captured through rates, a special levy on commercial and/or residential property where there is a demonstrable benefit to the landholder in terms of property value uplift of a piece of transformational infrastructure. Usually linked to public transport or significant amenity improvements;
- ♦ Funding Partnerships (PPP) between Government and the private sector for the delivery/operation of infrastructure or services to a local area. Government still pays for infrastructure, but in the long-term, either through foregone revenue to the private sector operator or incremental payments to the private sector operator. Only suitable for revenue generating infrastructure. Benefit is the avoidance of increased Government debt.

The Implementation Plan recommends investigation of the alternative funding mechanisms listed above at the outset to leverage future investment in Growth Plan initiatives.

Private Sector/Industry

4.0 PROPERTY AND ECONOMICS



PROPERTY AND ECONOMICS

4.1 OVERVIEW/KEY FINDINGS

In 2009/10, Port Hedland exported US\$18.7 billion of Iron Ore and its contribution to the economy is estimated at \$3.3 billion, which represents 1.8% of the Western Australian economy and 16.5% of the Pilbara regional economy. On the back of this mining and export activity, Port Hedland's economy has grown 61.3% over the last three years, with significant additional growth projected as a result of considerable long term global demand for steel and iron.

Providing opportunities for regional and local employment generation to address the gaps in employment outcomes within the community and providing the right conditions for robust economic growth to occur across a range of industries

Port Hedland is experiencing a similar mono-economy structure to many regional towns (although in this case it is as a result of strong exposure to mining activity, rather than agriculture), and there is a strong desire to increase economic diversification. The Port Hedland International Airport, one of the largest regional airports in terms of passenger movements, is a critical asset that can be leveraged against to increased economic activity and investment

Population growth in Port Hedland is expected to remain strong, linked to robust economic growth estimates and international resources demand. However, Port Hedland's economy and associated population growth is extremely dynamic and can vary significantly depending on resources demand levels and/or the timing of new industrial expansion projects.

The unpredictable nature of economic and population growth poses significant challenges in planning for the supply of additional housing and infrastructure. To cater for this uncertainty factor, and potential high growth scenario, the Growth Plan is planning for a total population of up to 50,000 people by 2031.

Port Hedland is remote from metropolitan Perth and cannot trade on any difference in relative house prices to attract residents. This situation is further exacerbated by the fact Port Hedland has significantly higher prices than Perth, making the fostering of inward migration to the LGA very difficult. While access to employment is the key driver of migration to Port Hedland, more affordable housing options are required to enable effective relocation to the municipality.

Investment in other infrastructure items, such as the airport, local and regional road network, and telecommunications (i.e. broadband) are all critical to support increased economic activity and diversity in the future. Additionally, core infrastructure related to water and energy is critical to enable increased housing supply.

Economic opportunities have been identified in professional services, construction services, heavy industries, defence, local agriculture, population-serving industries and regional tourism. Promotion and attraction of these industries and businesses will assist in diversifying the economy, creating a sustainable business environment and allow Port Hedland to capture a greater share of the value-add and supply chain of future mining sector activity.

4.2 CHALLENGES

The Growth Plan has identified a number of challenges to achieving a more diversified economy in Port Hedland, notably:

- Attracting and sustaining a resident population growth rate of over 4% per annum;
- Attracting and accommodating a significantly large construction workforce in the short term to deliver both industrial and essential domestic construction projects;
- Overcoming the mono-economy reliant on the Mining Sector;
- Addressing the housing undersupply, which the Growth Plan has identified as the most critical impediment to future economic growth;
- Overcoming a lack of local innovation and knowledge;
- ♦ The timely supply of critical strategic transport and utilities infrastructure to support economic activity;
- Expansion of local mining support activities to improve supply chain efficiency and replace import requirements;
- ♦ Lack of choice in the market:
- Lack of strong supply pipelines to mitigate against demand shocks and reduced perceptions of supply shortages;
- Development feasibility issues, relating to environment, infrastructure and development cost constraints; and
- ♦ Lack of a local labour force for both construction and operational phases of development.

4.3 RECOMMENDATIONS

To overcome the challenges identified above, a number of overarching recommendations have been made in the Growth Plan, including:

- 1. Maximise the availability to the market and public of information relating to housing, population growth and business development, to reduce speculation, empower the private sector and help normalise property markets.
- 2. Provide confidence in the long-term prosperity of Port Hedland through long-term serviced land supply.
- 3. Provide a diversity of housing options and choice, to cater for short-term visitors and long-term residents alike.
- Reduce the transaction costs of doing business, through increased use of technology, increased labour accessibility and decreased business accommodation costs.
- Capture mining sector supply chain activity locally, to increase the employment and value-add benefit of mining to the Port Hedland economy and help diversify the types of jobs and business.
- 6. Transition Port Hedland from a mining-dominated monoeconomy to a population-serving economy, through increased provision of health, education, retail and cafe and restaurant offering, coupled with locations of high natural and urban amenity.

The achievement of these goals, through the implementation of the key action items identified below will facilitate and support both the normalisation of the property market and foster growth and diversification in the Port Hedland economy.



4.4 KEY IMPLEMENTATION ACTIONS

The Implementation Actions captured in the framework in Section 2 are primarily 'whole of Port Hedland' related initiatives. The action items identified are by no means exhaustive; rather they comprise a broad cross-section of initiatives aimed at overcoming the challenges facing the region.

Among the actions identified as immediate priorities, are the following:

Local Property Strategy – designed to provide certainty to the market of the release and development schedule of Government land, with a specific focus on the local market. The strategy should capture the TWA/FIFO market and monitor the supply of this accommodation.

Development Contributions Plan – to promote the efficient and effective provision of public and community infrastructure which meets the demands arising from new growth and development.

Integrated Strategic Planning & Reporting Framework –The ToPH has embarked on this initiative and it has therefore been identified as an immediate term action. It is designed to provide for agreed levels of funding for Council sponsored initiatives. Including:

- 10 year community strategic plan;
- 10 year financial plan;
- 4 year workforce plan including office accommodation and housing;
- Asset Management Plan; and
- IT Framework.

Native Title Clearances – There is an urgent requirement to resolve Native Title in Port Hedland. This currently represents a major constraint to unlocking the urban expansion areas within Precinct 2.

The Implementation Plan also recognises Council's recent resolution to initiate a Scheme Amendment to recode the R20 zoned land within the municipality to R20/30 to provide for more diverse housing opportunities. This initiative has been captured within the short term actions.

Medium term actions include the preparation of an Infrastructure Funding Mechanism linked to mining sector royalties, to draw on private sector investment of core infrastructure in the Pilbara generally and Port Hedland specifically, as well as an Infrastructure Pilot Programme to integrate decentralised energy and water infrastructure into new residential and commercial developments.





COMMUNITIES AND CULTURE

5.1 OVERVIEW OF COMMUNITY ENGAGEMENT

Fostering the development of safe, friendly and inclusive communities.

Providing places and space that reflect and enhance the unique character, indigenous and non-indigenous heritage and identity of the area. Building resilience within the community and providing services and facilities for a range of diverse community needs and interests, so as to reduce disadvantage and improve social cohesion

The Growth Plan process was underpinned by a robust Stakeholder Engagement Strategy, supported by a Community Baseline Assessment. The primary objective of the engagement strategy was to identify stakeholders' thoughts and aspirations in relation to the draft Precinct Plans, and to test their support for the analysis and strategies developed to inform the precinct plans.

A major focus of stakeholder engagement was on 'testing' support for strategies as they were being developed. The feedback provided was wide-ranging across a number of different categories and themes. Salient observations provided include:

- Development of the West End as a cultural precinct has general support;
- ♦ Iconic, high-quality development of cultural facilities and short-stay accommodation are required irrespective of whether the marina goes ahead;
- ♦ The market should dictate the pace of redevelopment of residential lots to be consistent with new zonings;
- ♦ A stronger physical connection between Port and South is needed;
- Public transport network needs to be enhanced as the precincts develop;
- ♦ A much stronger recognition of Traditional Owner and European heritage is required, especially in the West End and including dual place-names;
- Community facilities should be developed in a well-defined hierarchy of regional, district and local sites;
- ♦ The draft Active Open Space Strategy is supported;
- A three-tier cultural facilities strategy is supported regional contemporary performing and visual arts facility as an iconic building in the West End; district art galleries in Port

(Courthouse) and South (new facility potentially part of Aboriginal Cultural Centre); and an artists' work-space;

- ♦ A public database of consultation outcomes and strategic plans will help avoid the loss of important data and reduce the potential for 'consultation fatigue';
- There is support for the development of a community foundation for Port Hedland;
- Not all under-employed or unemployed people want to work in the resources sector; Day care costs are prohibitively expensive for the workers needed by retail and other sectors of the economy, yet stay at home spouses of resources sector workers can feel isolated and contribute to turnover of residents;
- ♦ Efforts to address poverty though employment must simultaneously address the barriers to labour market participation faced by Indigenous people and recognise that many of the more employable people have already taken jobs;
- While resources companies have training and employment pathways, some Indigenous people would prefer to work in the community sector (health, schools) where there is less pre-employment support.

5.2 CHALLENGES

In addition to the Growth Plan community engagement, the ToPH also sought the preparation of a document entitled Port Hedland: Shaping a Cosmopolitan Port City. This document is intended to complement the Growth Plan, and articulate and enable the community to share in the vision; to understand community perspectives and 'soft' infrastructure needs. The document also explores how the community can build on the vision outlined in the Growth Plan.

In response to surveys undertaken, an overwhelming majority of the community believes Port's Hedland's greatest challenge is Housing Affordability.

The following five challenges were identified as the most pressing challenges for the Town to address:

- Affordability, accommodation and land;
- Community building, people attraction, vibrancy;
- Equality and inclusiveness;
- Changing perceptions and attitudes; and
- Safety and crime.

(Source: Port Hedland: Shaping a Cosmopolitan City. FORM, 2011)



Beyond the key challenges identified above, the community has identified a range of other challenges facing the town. A survey of the community undertaken by FORM revealed the following responses:

Affordability, accommodation and land	132
Community building, people attraction, vibrancy	47
Equality and inclusiveness	37
Changing perceptions and attitude	29
Safety/crime	28
Fifo and transient community	28
Leadership and planning	23
Diversifying the economy, small business	16
Remoteness and isolation	14
Climate, environment and sustainability	13
Integration of town, port and south	12
Amenities and infrastructure	9
Cleanliness and maintenance	9
Education	6
Action, implementation	5
Providing for youth	5
Other	5
Transport and connections	4
Healthcare	3

Figure 5.1: Community Survey Outcomes (Source: Port Hedland: Shaping a Cosmopolitan City, Form 2011)





5.3 RECOMMENDATIONS

The Growth Plan has outlined a wide-ranging set of community engagement strategies and initiatives, tied to the elements within the 'Local Communities and Cultural' theme, to be prepared and pursued by the ToPH, in consultation with industry partners and the community. Several of these are specific community building programmes and policy related initiatives to be prepared and pursued by the Town as part of its on-going roles and responsibilities to the community. Examples of these include:

- Programme of story capturing and storytelling, including place-making and public art initiatives;
- Creation of a Place identity and Communications Strategy;
- Programme of artisan and craft entrepreneur projects including markets and new venture supports; and
- Programme to preserve indigenous languages and preserve links to the unique Western Desert cultures.

Over-arching recommendations arising from the Growth Plan under this category can be described as follows:

- 1. Identified Community facility development to occur within a defined hierarchy of regional, district and local sites, and informed by the Port Hedland City Growth Model.
- 2. Infrastructure development to incorporate/reflect indigenous and non-indigenous heritage elements (e.g. design features, public art, place making etc).
- 3. Development and implementation of a Local Community Plan and Civic and Cultural Strategy.
- Increased communication and consultation with community members, industry partners and other stakeholders to inform the development of future Community and Cultural development initiatives.

5.4 KEY IMPLEMENTATION ACTIONS

The Implementation Plan addresses the above recommendations through a combination of the development of civic, cultural and recreation facilities and assets, supported by a range of policy and strategic initiatives aimed at addressing the challenges identified by the community in relation to 'Community Building, people attraction and vibrancy', as well equality and inclusiveness,

The Implementation Plan reflects an ambitious recreational, civic and cultural capital works programme, underpinned by a range of plans, strategies and feasibility studies.

Key immediate and short term actions identified in the Implementation Plan, to be developed and/or or progressed by the ToPH, include:

Cultural Plan – Development of a strategic Cultural Plan, which audits cultural groups, future service demand and infrastructure needs and includes a Public Art Strategy.

Active Open Space – Implement the recommendations of the Active Open Space Strategy.

Entertainment Facilities – Implement the Entertainment Feasibility Study.

Indigenous Reconciliation – Develop and implement a Reconciliation Action Plan.

Aboriginal Cultural Initiatives – Implement Aboriginal Arts Development Strategy towards provision of an Aboriginal Arts Centre.

Specific immediate terms actions identified for Port Hedland include:

Event Services and Passive Recreational Spaces – Development of a dedicated event and passive recreational spaces in the West End and Spoilbank.

Cultural Services - Investigation of a Cultural Centre for West End accommodating Galleries, Office Space and Industrial Tourism/ Historical displays.

Specific immediate term initiatives identified for South Hedland

include:

Entertainment Facilities and Infrastructure – Feasibility study into entertainment options, including performing arts centre and cinema complex.

Youth Services - Design and build youth space/skate park in South Hedland Town Centre, in accordance with community engagement outcomes.

Redevelop Civic Centre – Design and build a Civic Centre in South Hedland Town Centre.

Cultural Services - Upgrade Matt Dann Cultural Centre.

Aquatic Centre - Needs Assessment.

The Implementation Plan also captures a number of other master planning and feasibility studies to be undertaken in the short term, aimed at enhancing the tourism potential and coastal environment of Port Hedland. These include a Foreshore Master Plan and Feasibility Study to identify potential locations for Caravan Parks.

The short to medium term actions identified in the Implementation Plan relate primarily to the construction of the various assets listed above, and the implementation of recommendations arising from the various plans and studies.

A key component of the Implementation Plan is the identification of the education, healthcare and law and order needs of the community over the life of the Growth Plan. The provision of additional Schools, Health Centres, Aged Care facilities, Police and Fire Stations have been captured and costed (indicatively) based on information provided by the Growth Model.





6.1 OVERVIEW

An adequate supply of Affordable Housing has been identified as the primary constraint to current and future economic development, growth and diversification in the ToPH. Current difficulty in securing affordable accommodation is creating skills and labour shortages and increasing labour costs for local businesses and employers. The consequence of this is deteriorating business viability and a worsening in the diversification of the Port Hedland economy.

Providing an orderly and adequate supply of affordable land along with increased choice in affordable housing products and tenure options to cater for a diverse and permanent population

The growth of a permanent residential population is currently constrained by poor levels of housing affordability and a homogenous housing stock. This is forcing households to find more temporary accommodation solutions, varying from FIFO working arrangements to only residing in Port Hedland in the short-term. The lack of sustainability in permanent housing demand undermines long-term investment in the market by the private sector and reinforces existing speculative policies.

Currently, housing stock is highly homogenous, a reflection of the lack of demand critical mass, particularly from permanent residents, over the past decade. This has impeded the accessibility of permanent residents to accommodation by creating market friction between FIFO, temporary and permanent worker households.

The supply of housing must be practical rather than theoretical. This entails the provision of a strong pipeline of zoned and serviced residential land, so the lead times for releasing new land to the market is as short as possible.

Growth Precincts:

- Precinct 1 West End
- Precinct 2 East End Urban Village
- Precinct 3 Port Authority & Finucane Island
- Precinct 4 Redbank
- Precinct 5 Dampier Salt and Surrounds
- Precinct 6 Wedgefield Industry & Logistics
- Precinct 7 Airport & Surrounds
- Precinct 8 Pippingarra
- Precinct 9 Western Gateway
- Precinct 10 South Hedland West
- Precinct 11 City Centre
- Precinct 12 South Hedland East
- Precinct 13 Eastern Gateway
- Precinct 14 Southern
- Precinct 15 Boodarie
- Precinct 16 Port & South Hedland Surrounds



Figure 6.1: Growth Plan Precincts

6.2 **RECOMMENDATIONS**

- Ensure there is a sufficient forward supply pipeline of housing and zoned/serviced land across a range of locations, to meet immediate demand as well as help normalise the property market over the long term.
- Increase the supply, diversity and density of housing stock to meet the full range of accommodation requirements for all market segments – traditional houses, small lot houses, townhouses/medium density product, and medium/high rise apartments.
- 3. Improve access to housing and non-residential property through flexible and adaptable tenure, purchase/equity and land use arrangements (e.g. part/shared ownership schemes, promotion of home business solutions etc).
- Attract new permanent residents and business investment through financial incentives, encouraging development competition (and feasibility) and improving the supply of property and investment information to the market.

6.3 TRANSIENT WORKER AND SHORT STAY ACCOMMODATION

Port Hedland currently relies on at least 3,000 fly-in fly-out (FIFO) workers (although unofficial estimates place this number a lot higher) to supply skilled labour requirements of the local mining and construction industry. While a proportion of this workforce is accommodated in permanent residential housing in established areas, a large number of FIFO workers are accommodated in a variety of short stay and transient workforce accommodation throughout the town.

The Implementation Plan acknowledges the importance of Transient Workforce and Short Stay accommodation and to that end has highlighted the location and nature of current and proposed TWA facilities in Port and South Hedland. Section 3 of the Growth Plan highlights the short to medium term imperative to provide adequate levels of transient workforce accommodation in order to cater for the necessary operational and construction FIFO workers and help relieve immediate housing supply issues.

Regardless of FIFO type, the Growth Plan advocates a balanced and dispersed approach to the siting and location of TWA facilities, and the imposition of clear time limits on the operation of TWA sites to encourage a shift to a more permanent and integrated skilled workforce in Port Hedland. Whilst certain locations are clearly more appropriate for TWA developments than others, the creation of very large, self contained TWA complexes (including all associated facilities and key services) in locations removed from existing or future planned urban development areas is contrary to the overarching aims of the Growth Plan to create a liveable, sustainable regional city.

To reflect this approach, the Growth Plan advocates the following:

i. Where possible, operational TWA facilities should be

- provided in locations close to or integrated within existing urban areas, encouraging enhanced integration between temporary and permanent residents and shared/common use of local facilities, activity centres and key services.
- ii. Clear time limits on the operation of TWA facilities should be stipulated to encourage a shift to a more permanent and integrated skilled workforce in Port Hedland, and have regard to the actual planned land use for the site.
- iii. Where possible, operational TWA facilities should be provided in locations close to or integrated within existing urban areas, encouraging enhanced integration between temporary and permanent residents and shared/common use of local facilities, activity centres and key services.
- iv. Development proposals for TWA sites should clearly demonstrate their ability to leave a tangible legacy for the City, along with a commitment to longer term 'City Building' in their own right.
- v. The ToPH's statutory and policy framework should be revised to include the principles and development requirements associated with TWA facilities, as well as providing prospective TWA developers with the relevant guidance in site selection and facility design.

6.4 LAND RELEASE STRATEGY

To meet the forecast population target of 50,000 the Growth Plan has identified future development opportunities in both Port Hedland and South Hedland (refer Figure 6.2). Broadly, those opportunities will be provided in the East End of Port Hedland (Precinct 2) and within the expansion areas of South Hedland, notably Precincts 10, 11, 12 and 13.

In Precinct 2, future development will be met via a mix of increased densities in and around a Neighbourhood Centre, as well as opportunities for traditional lower density housing in the broadacre areas adjoining existing development at Pretty Pool and Cooke Point. In Precincts 10, 11, 12 and 13 in South Hedland, opportunities for new development exist predominantly within the expansion areas of South Hedland, increasing land between Murdoch Drive and Cottier Drive, and west to South Creek.

While market and political considerations play an important role in the decision-making process associated with land development, the rate at which development opportunities identified in the Growth Plan can be translated into development ready land remains largely a function of the time required to overcome the various planning, environmental, infrastructure and heritage (Native Title) constraints.

Political considerations and imperatives notwithstanding, where actions to 'de-constrain' land are considered relatively minor, the assumption is that development ready land can be brought to the market within a relatively short space of time. Conversely,

where the politics is complex or significant physical constraints exist, be they planning, environmental, infrastructure, heritage or a combination of some or all of these, the assumption is that development ready land is only likely to be realised over the medium and longer term horizons.

In general terms, land is less constrained in South Hedland than in Port Hedland, such that greater opportunities exist within South Hedland than Port Hedland for development ready land within the immediate and short term horizons. Critically, the resolution of Native Title in August 2011 for land in and around South Hedland, as identified in Section 3.4 of the Growth Plan, has removed a key constraint to future development.

For the purposes of the Implementation Plan, the adopted timeframes for development (staging) have been identified:

IMMEDIATE TERM	0-2 YEARS
SHORT TERM	3-5 YEARS
MEDIUM TERM	6-10 YEARS
LONG TERM	10+ YEARS

The estimated dwelling yields derived for each of the development cells reflect an assumed Residential Design Code (R Code) and deductions in the order of 35-40% (for roads, POS, schools and drainage).

It is important to note that the focus of the Implementation Plan is on the supply of land for new residential development in relation to residential development opportunities. As such, the estimated dwelling yields identified for each of the land parcels within the precincts does not include the renewal or replacement of current housing stock.

The Implementation Framework outlined in Section 2 of this document provides details for the development cells identified, including ownership, indicative dwelling yields, and indicative timeframes for development.

A summary of the land supply strategy across the relevant precincts in Port and South Hedland is outlined over the following pages.

6.4.1 Summary

The Implementation Plan has identified the opportunity for approximately 19,000 dwellings to be delivered on new development sites across a number of growth precincts in Port and South Hedland. In Port Hedland, Precinct 2 is estimated to deliver approximately 4,700 new dwellings with Precincts 10, 11, 12 and 13 in South Hedland combining to deliver approximately 14,000 new dwellings.

A summary of the estimated total new dwellings in Port and South Hedland, and anticipated timeframes for development, is outlined in the table below.

When combined with the potential renewal opportunities identified in the Growth Plan (eg. subdivision and redevelopment of existing stock) as well as the existing dwelling stock, there is a total estimated capacity of some 28,000 dwellings, which potentially caters for over 54,000 people based on current occupancy ratios (including sufficient stock to allow normalised vacancy rates of around 8%).

	IMMEDIATE	SHORT	MEDIUM	LONG	TOTAL
Port Hedland					
PRECINCT 2	315	1195	3105	115	4730
Sub-Total	315	1195	3105	115	4730
South Hedland					
PRECINCT 10		3090	2560	1130	7210
PRECINCT 11	710	460	300	-	1470
PRECINCT 12	175	1392	1379	-	2946
PRECINCT 13	-	-	1150	1500	2650
Sub-Total					14276
TOTAL	1180	6925	6180	4915	19006

Figure 6.2: Summary of Existimated Dwelling Yields

6.4.2 Precinct 2 – East End

In Port Hedland, new development opportunities will be provided almost exclusively in Precinct 2. In Precinct 1 (the 'West End'), the Growth Plan assumes approximately 450 dwellings under an ultimate land use development scenario, which effectively represents no net increase in total dwelling numbers (there is currently an estimated 450 existing dwellings in Precinct 1, as derived from the ToPH Housing Capacity Study). Accordingly, for the purposes of the Implementation Plan, no net additional dwellings are forecast to be provided within Precinct 1.

Precinct 2 - land collectively known as the 'East End' - comprises predominantly Crown Reserve, Unallocated Crown land (UCL) and small areas of privately owned land. It contains the primary residential areas of Port Hedland, including Cooke Point and Pretty Pool (Refer Fig 6.3).



Figure 6.3: Precinct Plan - Growth Precinct 2 East End

The key implementation issues/actions to be addressed in Precinct 2 to facilitate future development are as follows:

- Native Title clearance (Native Title negotiations between the YAMATJI and the State Government are progressing);
- Master planning/rezonings required (currently progressing);
- Landownership fragmentation to be coordinated towards cohesive development staging/outcomes;
- Mangrove, Coastal Vulnerability, Heritage & other considerations to be resolved;
- WWTP relocation/remediation required including removal of existing buffer;
- Infrastructure service provision upgrades / trunk infrastructure to be in readiness for project staging;
- Geotechnical / Fill assessments required to inform final development feasibility / response to coastal vulnerability;
- ♦ Economic Development/Retail assessment required to inform detailed planning of 'East End Neighbourhood Centre.

Having regard to the above constraints, the majority of the land within the East End has been identified as being development ready within the medium term (6-10 years). In particular, the requirement to decommission and relocate the wastewater treatment plant represents a major impediment to development ready lots being realised in the immediate (0-2) years, particularly for those sites east of Cooke Point Drive.

LandCorp is currently progressing detailed concept planning over the majority of Precinct 2, being land bounded generally by Athol Street to the North, Wilson Street to the South, the Shopping Centre to the West and the Pretty Pool residential area to the east (refer item 21 of the Implementation Framework).

The immediate focus of LandCorp's investigations is on land immediately adjoining Athol Street, being development *Parcels W, X, Y, Z, AA and AB*. LandCorp is working to 'de-constrain' these parcels, with a view to having *Parcel Z*, yielding approximately 315 new dwellings, development ready in the immediate term (0-2 years). *Parcel Z* has been identified as the main site within Precinct 2 likely to be development ready within the immediate term. The remaining parcels are forecast to be development ready within the short term (6-10 years). Notwithstanding the planning, environmental and geotechnical issues to be overcome, Native Title needs to be resolved before development can proceed.

Parcel AO, at the intersection of Cooke Point Drive and Athol Street, is the other key development site within the precinct. The site is the subject of current development planning but is constrained by the WWTP. It is anticipated to be development ready within the short term, should a proponent progress to secure the necessary

planning and development approvals from the Council (estimated to potentially achieve some 650 residential units).

The remainder of the development parcels within the precinct, with the exception of *Parcel I*, have been identified as being development ready within the medium term (6-10 years). *Parcel I* is the ToPH's Administration Offices. While the Council has expressed a desire to relocate its administration, this is seen as a long term (10+ years) proposition, and the opportunity to convert this site to residential purposes (approximately 115 dwellings) is ultimately predicated upon the council relocating its offices.

A summary of the dwelling yields and anticipated timeframes for development within Precinct 2 is outlined in the table below:

	IMMEDIATE	SHORT	MEDIUM	LONG	TOTAL
PRECINCT 2					
(Port Hedland East End)	315	1195	3105	115	4730



6.4.3 Precinct 10 – South Hedland West

Precinct 10 represents South Hedland's newest land release area. It comprises predominantly Crown Reserve, Unallocated Crown land (UCL) as well as areas of privately owned land (Refer Fig 6.4).



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The key implementation issues/actions to be addressed in the Precinct to facilitate future development include:

- Due Diligence, Feasibility, and Masterplanning, including rezoning;
- Potential effects of flooding on areas identified for future development, particularly from South Creek, with fill/ earthworks required to mitigate flood risk to low lying areas and inform final development feasibility;
- Capacity of existing sub-station currently near its capacity which will limit any further growth beyond 2011;
- Insufficient potable water supply to support future growth;
- Wastewater treatment currently at capacity.

Having regard to the above constraints, the majority of the land within Precinct 10 has been identified as being development ready within the short term (2-5 years).

One parcel (*Parcel A*) has been identified as the only immediate term opportunity in the precinct.

LandCorp is currently progressing concept planning and rezoning across the land collectively known as the 'Western Edge'; this encompasses *Parcels I-L, M-Y and AB* (refer items 21 and 22 of the Implementation Framework).

Subject to the successful resolution of the planning, infrastructure and fill/earthworks requirements, the 'Western Edge' is anticipated to deliver approximately 3500 new dwellings in the short term (3 -5 years). The project may offer the opportunity for public-private development partnering and is expected to provide for a variety of dwelling type including retirement lifestyle villages.

There is the potential for an additional 1000 dwellings to be delivered in the medium term (6-10 years) through the conversion of the TWA and Key Workers accommodation on **Parcels A and B** (BHPBIO) and **Parcels C and D**. However, this additional yield is contingent upon the removal and conversion of these temporary facilities.

The other key short term opportunity will be delivered by the resources sector through *Parcels A and B*, situated at the intersection of North Circular Road and Hamilton Road. These sites have recently been sold to BHPBIO to facilitate development of a 430 dwelling Key Worker Accommodation development.

Parcels Z and AA south of Cottier Drive, are intended as a landbank for long term (10+ years) urban development, linked to demand/supply requirements. The combined estimated dwelling yield of these two parcels is 3300. Among other factors, these sites remain constrained by Native Title and the buffer requirements associated with the existing landfill facility in the south eastern area of the precinct.

A summary of the dwelling yields and anticipated timeframes for development within Precinct 10 is outlined in the following table:

	IMMEDIATE	SHORT	MEDIUM	LONG	TOTAL
PRECINCT 10 (South	430	3090	2560	1130	7210
Hedland West)					





6.4.4 Precinct 11 – City Centre

As Port and South Hedland continue to develop, the South Hedland City Centre (SHCC) will play an increasingly important role not only as the primary activity centre catering for the retail and service needs of a growing population (refer Fig 6.5).

a challenge, however one of the great success stories of this project, through carefully considered design outcomes and creating spaces which are intimate and human-scaled has been the delivery of a usable space which reflects history and culture of the place"

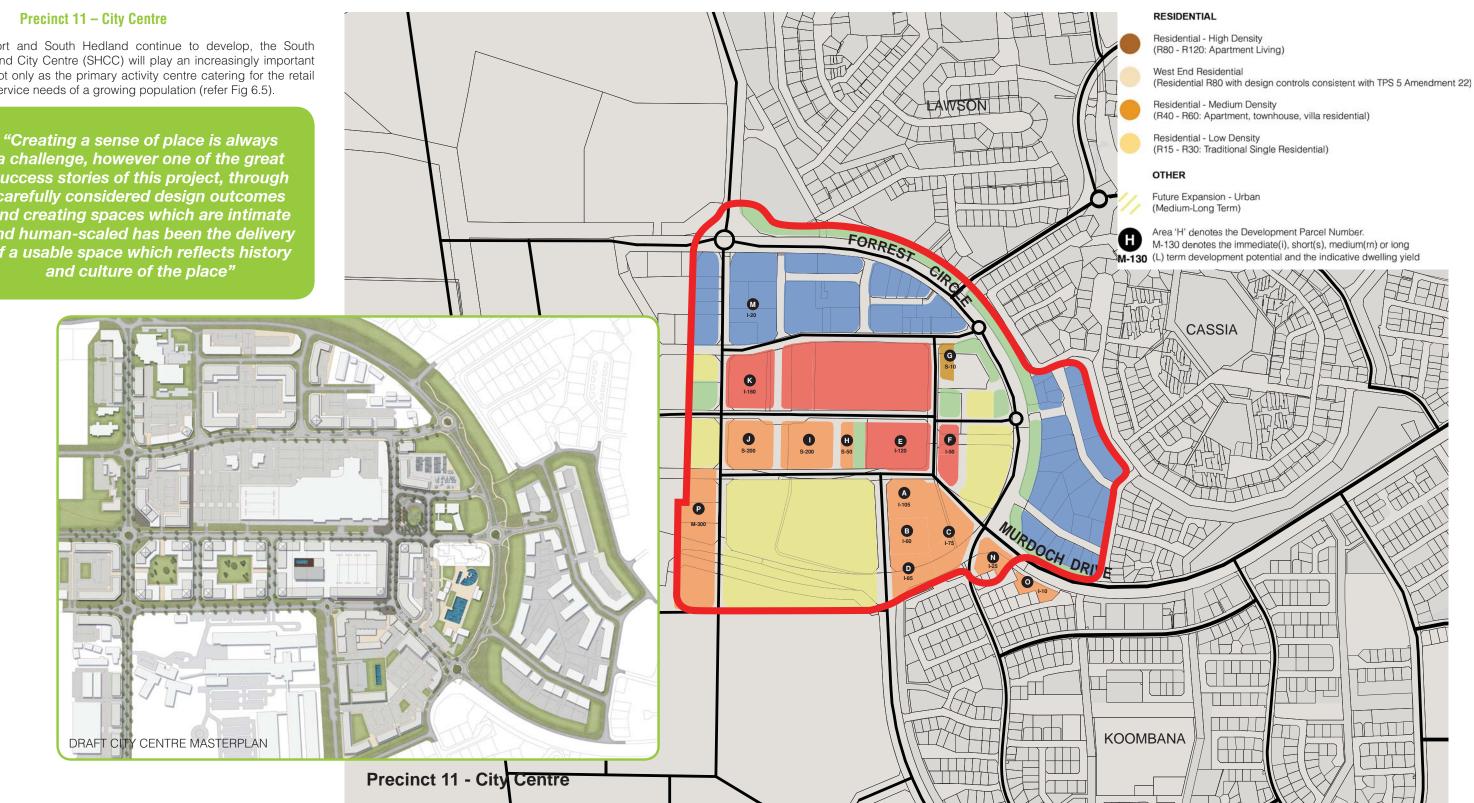


Figure 6.5: Precinct Plan - Growth Precinct 11 South Hedland City Centre

Much of the City Centre land remains vacant and undeveloped, namely those areas immediately north/north west and east of the Hospital site (yellow coloured parcel east of **Parcel P**). These undeveloped areas are primarily under State Government/Crown control (and now clear of Native Title restrictions) and therefore present significant development opportunities.

Master Plan implementation of the City Centre has already been commenced by LandCorp. The Main Street was launched by the Minister for Regional Development and Lands in November 2011.

An updated Master Plan to the ToPH endorsed 2009 Master Plan is currently being progressed by LandCorp for the SHCC which provides, at the local level, a spatial planning and urban design framework for the City Centre that seeks to facilitate/stimulate development and meet the needs of a rapidly growing population. The Master Plan is intended to:

- identify the required levels of retail and commercial floor space to facilitate local economic development;
- increase the services/facilities offering for residents and visitors; and
- increase housing supply and improve product choice and affordability.

As part of the implementation process, LandCorp anticipates releasing *Parcels I, J, N and O* for tender during 2012. *Parcels A, C and D* have already been released.

While future development within this precinct will benefit from the presence of the existing infrastructure, with minimal extension works required to allow for connection, the main development constraint remains the available capacity of that infrastructure to service additional demand.

A summary of the dwelling yields and anticipated timeframes for development within Precinct 11 is outlined in the table below.

	IMMEDIATE	SHORT	MEDIUM	LONG	TOTAL
PRECINCT 11					
(South Hedland City Centre)	710	460	300	-	1470



6.4.5 Precinct 12 – South Hedland East

Precinct 12 comprises the original four neighbourhoods of South Hedland, together with the adjoining land to the south within North Circular and Cottier Roads. Land in the precinct is primarily Crown Reserves and unallocated Crown Land (refer Fig 6.6).

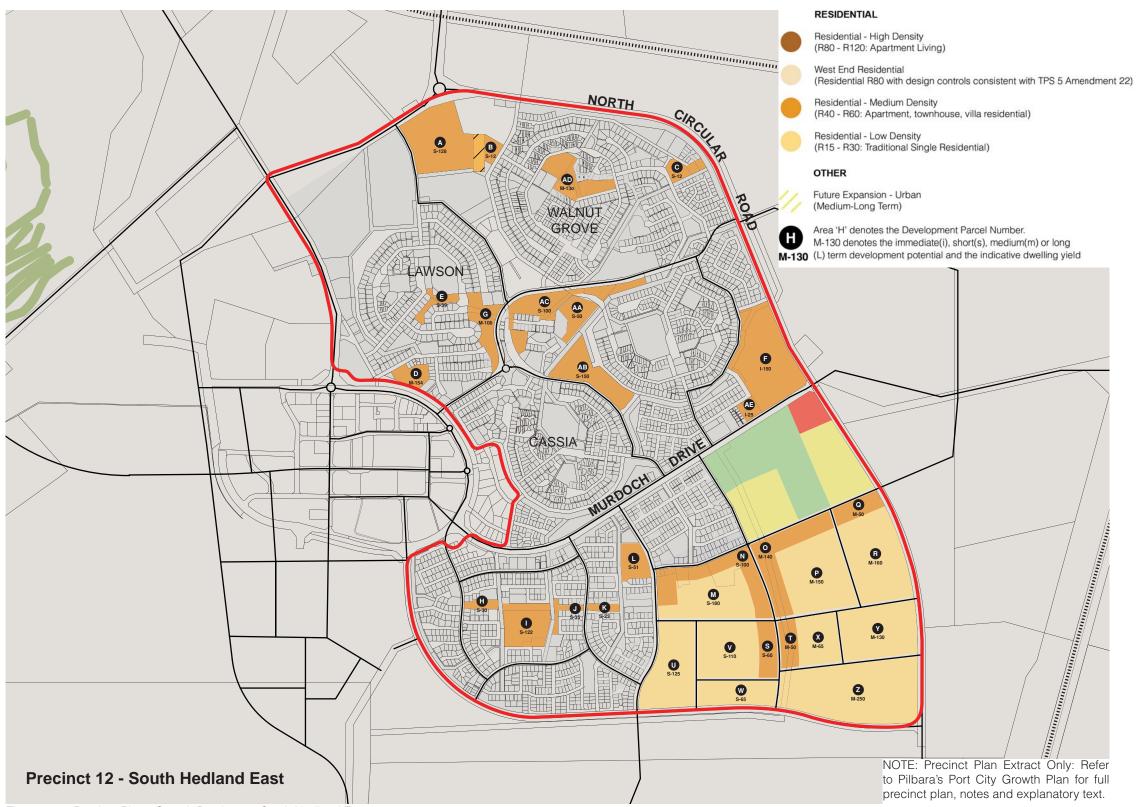


Figure 6.6: Precinct Plan - Growth Precinct 12 South Hedland East

The precinct offers a combination of 'greenfields' development opportunities, together with a number of opportunities for infill redevelopment among the existing suburban housing stock in South Hedland.

The ToPH has already sought to encourage the redevelopment of housing stock by initiating Amendment 51 to TPS5, which proposes to increase density codings of established Residential R20 areas to Residential R20/R30 (the Implementation Framework has identified this amendment as an immediate term initiative).

The key implementation issues/actions to be addressed to facilitate future development include:

- Due Diligence, Feasibility, and Masterplanning, including rezoning;
- Potential effects of flooding on areas identified for future development, with fill / earthworks required to mitigate flood risk to low lying areas and inform final development feasibility;
- Capacity of existing sub-station currently near its capacity which will limit any further growth beyond 2011;
- Insufficient potable water supply to support future growth;
- Wastewater treatment currently at capacity; and
- Buffer from the adjoining landfill site.

The Department of Housing (DoH) is coordinating the majority of development opportunities within the Precinct. The DoH has commenced masterplanning for *Parcels M, N, S-V and W and Parcels O-R, T and X*. The former sites are currently zoned for 'Rural' purposes and will therefore require rezoning. While masterplanning, rezoning and infrastructure requirements can be expedited, the lead times associated with decommissioning, post closure works and relocation of the adjoining landfill site represents the biggest constraint to early development. These six land parcels, with a combined yield of approximately 1000 dwellings, have therefore been identified as medium term (6-10 years) development opportunities only.

Concurrently with broader masterplanning, the DoH is progressing a subdivision application over *Parcels O-R, T and X*. These sites, with a combined yield of approximately 650 dwellings, have been identified as short term opportunities, as they are appropriately zoned and services can be readily extended from the existing development to facilitate new development.

Remaining development opportunities within the precinct will largely be delivered through 'infill' development. In this regard, the Department of Housing as well as private sector interests including Jaxon *(Parcels H-K)* and Cedar Woods *(Parcels A-B)* are progressing the necessary master planning, rezoning and/or subdivision approvals across these sites. By virtue of their 'infill' nature, these sites are capable of being developed within the

short term. The Department of Housing has indicated that some of its infill sites will likely only be development ready in the medium term, based on its current forecast development priorities.

A summary of the dwelling yields and anticipated timeframes for development within Precinct 12 is outlined in the table below.

	IMMEDIATE	SHORT	MEDIUM	LONG	TOTAL
PRECINCT 12					
(South Hedland East)	175	1392	1379	-	2946







6.4.6 Precinct 13 – Eastern Gateway

Precinct 13 is comprised of Crown Reserves and Unallocated Crown Land. The precinct offers 'greenfields' development opportunities in the medium term, as well as a landbank for longer term residential land supply (Refer Figure 6.7).

The key implementation issues/actions to be addressed to facilitate future development include:

- Due Diligence, Feasibility, and Master planning, including rezoning;
- Potential effects of flooding on areas identified for future development, with fill / earthworks required to mitigate flood risk to low lying areas and inform final development feasibility;
- Capacity of existing sub-station is near its capacity and will limit any further growth beyond 2011;
- Insufficient potable water supply to support future growth;
- Wastewater treatment currently at capacity; and
- Noise from the Port Hedland-Newman railway line.

The Department of Regional Development and Lands will need to coordinate the future feasibility, master planning and development of these sites, although progressing these lots to a development ready status is not expected to occur within the next 5 years.

A summary of the dwelling yields and the anticipated timeframes for development within Precinct 13 is outlined in the table below.

	IMMEDIATE	SHORT	MEDIUM	LONG	TOTAL
PRECINCT 13 (Eastern Gateway)	-	-	1150	1500	2650

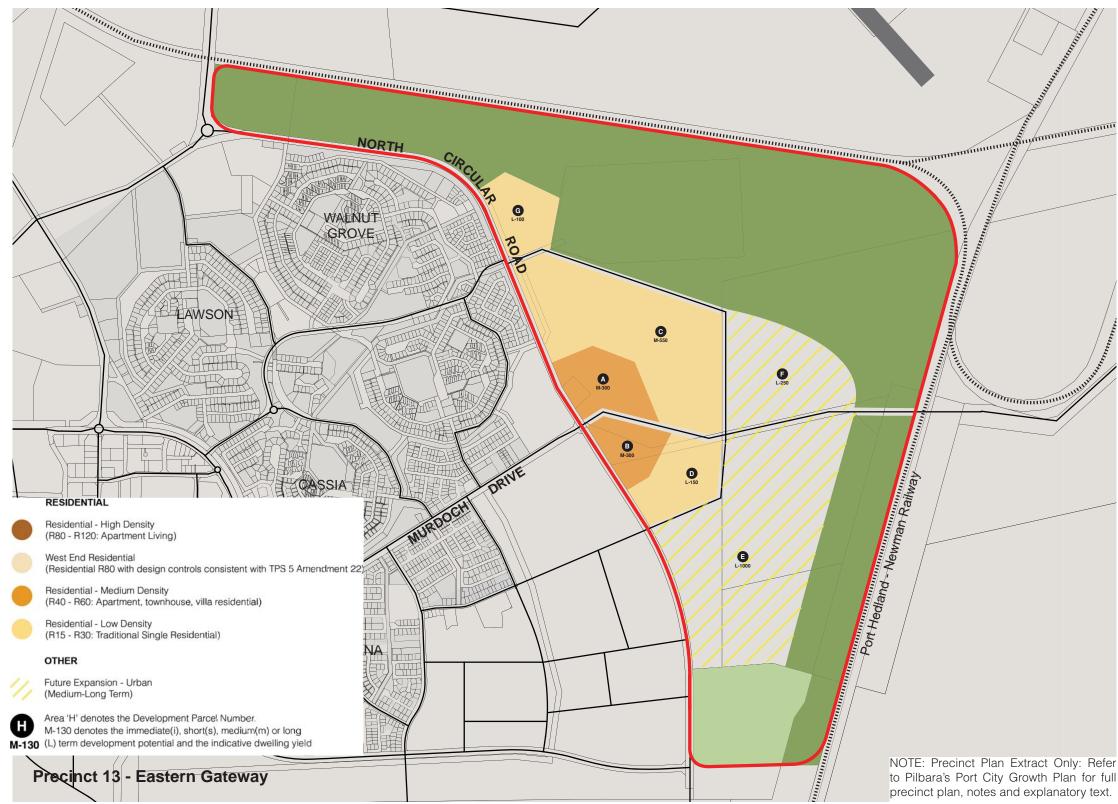


Figure 6.7: Precinct Plan - Growth Precinct 13 Eastern Gateway



ENVIRONMENT AND CHANGE ADAPTATION

7.1 OVERVIEW

The protection and enhancement of natural environmental and cultural assets, biodiversity, air and water quality, and building resilience against the long term effects of climate change

The Growth Plan has highlighted coastal vulnerability, notably major flooding events associated with cyclonic activity and storm surge, noise and dust, contaminated sites and biodiversity as the significant environment considerations in and around the Town of Port Hedland.

Dust (particularly iron ore dust) and noise levels, specifically in the West End of Port Hedland, is a critical issue to be managed into the future and has been identified in the Implementation Action as a specific action.

The Port Hedland Air Quality and Noise Management Plan, released in March 2010 after being endorsed by State Cabinet, is a comprehensive management plan for the ongoing air quality and noise management in Port Hedland. The Dust Taskforce makes recommendations to manage both issues on a number of fronts:

- Health risk assessment and analysis;
- Land Use Planning;
- Industry initiatives; and
- Governance.

A primary role of the Dust Taskforce is to achieve greater balance between industrial management of potential environmental health risks with a change in the approach to planning and development in the West End.

Contaminated and potentially contaminated sites, along with the presence of potentially contaminating activities, have been identified in the Growth Plan as a key constraint to the future planning and growth of Port Hedland, with site specific assessments and remediation requirements potentially adding significant time to development.

A number of sites within in Port Hedland have been identified as being potentially contaminated:

- Seven registered DEC Contaminated sites;
- Heavy industry including port activities and extractive industries:
- Light industry including storage facilities;
- Some residential land uses;
- Utilities including the gas power plant, airport, landfill site, incinerator and sewerage treatment plants; and
- Petrol stations, hospitals, abattoirs, rifle ranges and cemeteries.

7.2 CHALLENGES

The environmental issues presenting significant challenges (and/or constraints) for the future planning and development of Port Hedland include the vulnerability of the Coastal and Marine environments, Marine Fauna, Storm Surge and Flooding, Dust, Drainage, Noise and Climate Change. As such, the key challenges can be summarised as:

- Protecting and preserving coastal and marine environments;
- Protecting the region's unique flora and fauna;
- Adapting to the challenges of climate change and anticipated sea level rise, and mitigating the risks presented by the region's unique climatic factors (cyclone events, storm surges etc); and
- Managing growth to avoid environmental health risks associated with contamination, noise/vibration, incompatible land uses, dust etc.

7.3 RECOMMENDATIONS

In response to the environmental challenges identified above, the Growth Plan makes a number of core recommendations, as follows:

- 1. Proactive environmental investigations (e.g. flora/fauna, water management, contamination, coastal setbacks etc) for priority land release sites to inform timely identification of design responses and management actions.
- 2. Active monitoring of environmental factors (quality, quantity etc) to inform ongoing development, land use and management actions (e.g. air quality, noise, water quality etc).
- 3. Facilitate and encourage increased State/Local Government agency capacity and coordination with regard to the timely consideration of environmental approvals and identification of long term strategic initiatives (e.g. change adaptation and resilience initiatives).

7.4 KEY IMPLEMENTATION ACTIONS

To provide development ready land to the market will require, among other things, appropriate resolution of the environmental considerations outlined above, including water management and drainage, site contamination, noise and dust, and flora and fauna.

Water management and drainage considerations are critical matters to be resolved if land is to be 'de-constrained' for future development. As a minimum, new development sites may require 2 years of groundwater monitoring to inform the preparation of the District Water Management Strategy (DWMS) required for rezoning and development.

The Implementation Plan reflects the various environmental studies and investigations which need to be undertaken as a precursor to any development, with the relevant field work and reporting requirements captured as immediate term actions, once development intentions have been confirmed by the individual proponent. This includes the modelling of potential flooding, storm surge impacts and noise modelling in the case of potentially sensitive land uses.









INFRASTRUCTURE CAPACITY

3.1 OVERVIEW

Strategic and urban transport, utilities and communications infrastructure are provided in a timely, sustainable and efficient manner to cater for a growing resident population and increasing economic activity

Water Supply

Water is supplied to Port and South Hedland via extraction from the Yule and De Grey rivers. The Growth Plan notes that the supply is currently fully allocated. However, the State Government recently announced an additional five gigalitres of potable water (per year is to be allocated from the Yule and de grey aquifers. An additional ten gigalitres per year of non-potable 'fit for purpose' water has also been reserved from the West Canning Basin for Industrial Use. These initiatives will help address short to medium term water requirements for domestic and industrial purposes, with the necessary infrastructure upgrades planned for completion in 2013-14.

Wastewater

The treatment and disposal of wastewater within the Town of Port Hedland is undertaken by the Water Corporation. The system currently discharges to one of two wastewater treatment plants, one in Port Hedland and the other in South Hedland. The Water Corporation has advised that the South Hedland wastewater treatment plant is at capacity, while there is some capacity still available in the Port Hedland wastewater treatment plant.

Power

Horizon Power is the supply authority and operator of the Pilbara power supply grid. To support a population of up to 50,000 persons, it is estimated an additional three zone substations will be required. Horizon Power has indicated that they have identified strategic locations for these zone sub-stations

Roads, Pedestrian and Cycle Networks

While the Town has a well established and purpose built port and rail Infrastructure to support the mining industry, there are capacity and constraint issues in relation to the existing road network in both Port and South Hedland, including:

- Limited direct access to the coast;
- Conflict between freight and local traffic, particularly around the West End:
- Efficiency and safety issues on the Great Northern Highway (Port Hedland Road) between Port and South Hedland;

- Indirect and impermeable street layouts and connections throughout South Hedland; and
- Limited access to surrounding tourist and rural communities due to seasonal flooding of access roads.

In a similar vein, the pedestrian and cycle network suffers from a lack of 'connectivity', with the path network scattered throughout Port Hedland, and in some cases not linked directly with the rest of the network.

The absence of a pathway linking Port Hedland, South Hedland and Wedgefield has emerged as one of the Community's top priorities.

8.2 CHALLENGES

Key infrastructure challenges identified in the Growth Plan relate to the timely provision of additional water, wastewater and power to service the development areas identified in the Growth Plan, and in Section 6 of the Implementation Plan. At present, all essential infrastructure services are at full capacity.

Long lead-in timeframes associated with the identification and development of new infrastructure services compounds the problem.

The availability of a suitable supply of fill and the lack of appropriate recycling facilities and services represent other key challenges to be addressed. In particular, the need to source appropriate quantities of fill has been recognised as an immediate term action in the Implementation Plan.

A number of key challenges also exist in relation to the road and cycle networks. Traffic growth in Port Hedland is causing congestion and vehicle conflict on key Distributor Roads and a number of urgent upgrades are therefore required to the surrounding road network and cycleways.

8.3 RECOMMENDATIONS

Over-arching recommendations arising from the Growth Plan in relation to infrastructure capacity can be summarised as follows:

- 1. Identification/progression of priority transport infrastructure upgrades and works to unlock development sites and resolve safety/traffic management conflicts.
- 2. Progression of business case development and detailed feasibility investigations for sustainable transport solutions, particularly those aimed at improving access to employment/ training and between Port and South Hedland.
- Proactive early planning and consultation with infrastructure providers to ensure timely provision of serviced land to the market
- 4. Increased agency capacity and cooperation with regard to short term infrastructure provision and maintaining/building long term supply capacity.
- 5. Timely progression of investigations and works to relocate/ consolidate existing infrastructure currently constraining growth in priority locations (e.g. Port Hedland Waste Water Treatment Plant, South Hedland Landfill site).

8.4 KEY IMPLEMENTATION ACTIONS

The timely provision of essential infrastructure services and enabling works will provide a catalyst for future development. Accordingly, the Implementation Plan is focussed on ensuring the that necessary technical studies and investigations to support enabling works are completed as priorities. A summary of key actions with immediate term requirements are listed below.

Water Supply - Expansion activities of Yule and DeGrey River borefields and associated infrastructure.

Water Supply - Investigation and establishment of West Canning Basin borefield.

Water Supply - Upgrade distribution infrastructure (trunk mains/ water tanks/water tower) to meet demands for 2016 and 2026.

Wastewater - Decommissioning of Port Hedland WWTP and upgrading of South Hedland WWTP including associated infrastructure and remediation.

Power - Commence discussions with Horizon Power and Gas Authority on planning, supply and easement requirements. This should also include relocation requirements in line with precinct development.

Airport Redevelopment - commence planning.

Landfill site - Undertake Technical/Feasibility Study.

Wallwork Road Bridge Duplication - Construction.

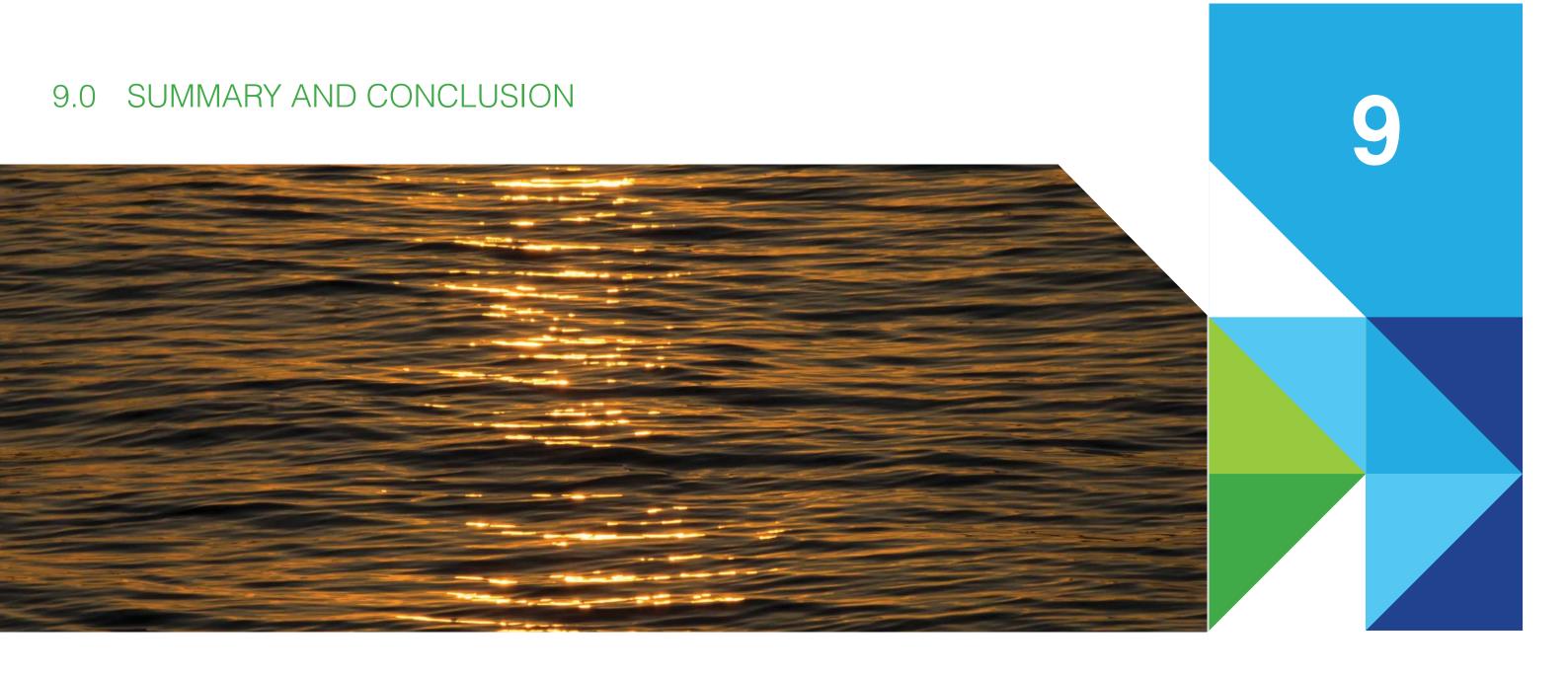
Pedestrian Bridge (Pretty Pool to Cooke Point) – Planning and Design.

The Implementation Plan acknowledges that key infrastructure works have long lead times, such that the construction process represents the majority of the actions identified in the short to medium term timeframes.









SUMMARY AND CONCLUSION

9.0 SUMMARY AND CONCLUSION

Significant regional and city level planning has taken place since the Pilbara Cities project was launched, with the Pilbara Planning and Infrastructure Framework (WAPC, 2011) and Pilbara's Port City Growth Plan (ToPH, 2012) setting clear directions and priorities for future land use and infrastructure planning. At a more local level, however, further detailed planning is required for priority land release areas and to coordinate the delivery of high quality urban environments for people to enjoy.

The Implementation Plan outlines the requirements to deliver the objectives of Pilbara's Port City Growth Plan. It is intended as a 'road map' for the delivery of the spatial and non-spatial projects and programmes identified in Pilbara's Port City Growth Plan (Growth Plan), and provides an action plan to realise the vision and objectives of the Growth Plan, that will see Port Hedland develop into a thriving city of up to 50,000 people.

The Implementation Plan should be seen as a flexible document designed to respond to a range of growth scenarios. Given the significant challenges and constraints confronting the future growth of Port Hedland, notably in respect servicing and infrastructure capacity, there is an urgent need to secure funding from the Government to enable these over-arching constraints to be addressed as quickly as possible.

While the Implementation Plan is a separate document to the Growth Plan, the two are closely connected and should therefore be read and cross-referenced concurrently.

While total indicative costs have been calculated for the various projects and programmes over the life of the Growth Plan, to provide some sense of the significant sums of monies involved, the Implementation Plan recognises the inherent risks and uncertainties associated with the cost of projects earmarked for the medium to longer term. The Implementation Plan acknowledges an imperative on the part of Pilbara Cities, the ToPH and other key stakeholders to secure funding for those actions and initiatives identified as critical to unlocking and 'de-constraining' land for development purposes. Invariably, these are immediate (0-2 year) and short term (3-5 year) propositions.

The Implementation Plan has identified a funding requirement of approximately \$1.2b for all of the costed actions and projects captured in the immediate and short term timeframes. While an estimated additional \$600m would be required to fund the actions and projects in the medium (6-10 years) and long term (10+years), the Implementation Plan recognises the inherent risks and uncertainties associated with the cost of projects earmarked for the medium to longer term.

Accordingly, the funding scenario articulated in the Implementation Plan is linked to costs associated immediate and short term proposals.

While adequate funding is a critical component of the success, or otherwise, of the delivery process, governance and management arrangements are equally important; unclear governance

structures pose a major risk to the successful delivery of the Implementation Plan.

The Implementation Plan recognises the existing governance arrangements and reporting structures and seeks to reinforce and augment these where appropriate.

It recognises the pivotal role of Pilbara Cities and strongly endorses the continuation of this agency's role in securing the necessary funding for the projects and programmes identified in the Implementation Plan, and in brokering the outcomes required to fast track the de-constraining of the major obstacles and challenges identified in both the Growth Plan and Implementation Plan.

A critical element of the Implementation Plan is to articulate the spatial land supply strategy, that is, to identify the dwelling yield capacity for the proposed urban expansion areas highlighted in the growth Plan.

In this regard, the Growth Plan has identified an estimated supply capacity of some 23,000 new dwellings (some 28,000 including existing), with the potential to cater for over 54,000 people based on current occupancy ratios (including sufficient stock to allow normalised vacancy rates of around 8%).

Broadly, those opportunities will be provided in the East End of Port Hedland (Precinct 2) and within the expansion areas of South Hedland, notably Precincts 10, 11, 12 and 13.

The Implementation Plan has identified a capacity in the relevant precincts for estimated total yield of 19,000 dwellings, broken down as follows:

- Port Hedland approximately 4,700 new dwellings, or 25% of the estimated yield;
- South Hedland approximately 14,200 new dwellings, or 75% of the estimated yield.

In general terms, land is less constrained in South Hedland than in Port Hedland, such that greater opportunities exist within South Hedland than Port Hedland for development ready land within the immediate and short term horizons. Critically, the resolution of Native Title in August 2011 for land in and around the South Hedland, as noted in Section 3 of the Growth Plan, has removed a key constraint to future development in South Hedland.

Next Steps

Following submission of the final drafts of the Growth Plan and Implementation Plan to the ToPH, the following key milestones have been identified:

INDICATIVE TIMEFRAME	TASK
lst Half 2012	Finalisation and Adoption of the draft Growth Plan and Implementation Plan by the ToPH
lst Half 2012	2. Endorsement of the Growth Plan and adoption as the Town's Local Planning Strategy by the WA Planning Commission (Pilbara Region Planning Committee)
2nd Half 2012	3. Establishment of the Pilbara Projects Working Group and Port Hedland Projects Implementation Group
2nd Half 2012	4. Preparation relevant Business Cases and detailed Delivery Plans (including funding requirements for additional staff resources within the ToPH)
2nd Half 2012	5. Secure funding for priority projects and programmes identified in the Implementation

Figure 9.1: Next Steps.

Plan to meet immediate and

short term demands





APPENDICES

10.1 APPENDIX 1 - PRECINCT CONSTRAINTS

Precinct 2

The table below provides a summary of findings and key actions which are required to 'de-constrain' infrastructure and servicing items in Precinct 2

TECHNICAL ISSUE/CRITERIA	CRITICAL/KEY OBSERVATION/S	KEY 'DE-CONSTRAINING' ACTIONS	CRITICAL RISKS/FATAL FLAWS (NB. ONLY EXTREME RISKS HIGHLIGHTED)	IMPLEMENTATION/MITIGATION ACTIONS RESPONSIBLE AGENCY CRITICAL 'LEAD TIME' CONSIDER	RATIONS
HOUSING DIVERSITY AND LAND SUPPLY	 Study area is predominantly comprised of Crown Reserve (CR), Unallocated Crown Land (UCL) with some areas of private holdings. Relocation of existing Racetrack, Pony Club and ToPH office requiring relocation. Racetrack has moderate heritage values. Interface with existing residential and land use conflicts with industry requiring consideration in development proposals. Impacted by Coastal Process Setback. Indigenous heritage issues: Registered Indigenous sites within Precinct 2 include significant sites such as: Lock Hospital (Site ID680); Pretty Pool (Site ID 28249); Stone Structure (Site ID 20207); and possibly Two Mile Ridge on the southern boundary designated Environmental Buffer. Non-Indigenous heritage: Heritage Register #19 Racecourse; #20 Koombana Lookout; #43 WWII Rifle Range; #44 Detention Centre Dempster St; #47 Pretty Pool. Rezoning and Town Planning Scheme Amendments required. 	 Land Assembly TPS Amendment Local Structure Plan Development Contribution Plan Native Title resolution 	Timeframes associated with planning approvals. Native Title Heritage and dust issues compromise ultimate development capacity.	> Commit to implementation of Growth Plan land use recommendations through statutory planning frameworks (zonings, development requirements etc) providing incentive for development/redevelopment. > Identify alternative locations for Racetrack and ToPH offices. ToPH DoP/WAPC WaterCorp Port Authority DIA Up to 3 years to complete key planel p	ind itage Studies.
ENVIRONMENTAL PROTECTION AND CHANGE ADAPTATION	 Risk of light spill from development impacting marine turtle habitat and behaviours at Cemetery and Pretty Pool Beaches. Risk to human health from dust from the BHP Ore Stockpile Area and existing and proposed projects within the West End of Port Hedland. Mangrove, Benthic Primary Producer Habitat (BPPH) have the potential to impact upon potential development opportunities. Existing and potential increase in industrial Noise from Wilson Street and Rail Infrastructure may potentially impacts upon proposed sensitive land uses. Alteration of coastal environment through construction of coastal development sites at Pretty Pool Creek mouth. Alteration in marine water quality through construction of coastal development sites at Pretty Pool Creek mouth. Potential effects of storm surge and flooding upon areas identified for development 	 Identification of least constrained parcels of land within the Precinct. Undertaking of identified environmental investigations for those parcels of land. Early liaison with Dust Management Task Force (re: Dust) and BHP Billiton (re: Dust and Noise). Liaison with the DoW is recommended to determine the specific requirements for the Water Management. Strategies 	Risk of light spill from development impacting marine turtle habitat and behaviours at Cemetery and Pretty Pool Beaches. Identified by OoEPA as issue of importance Risk to human health from dust from the BHP Ore Stockpile Area and existing and proposed projects within the West End of Port Hedland. Dust Risk and potential to affect the primacy of BHP Billiton Port and Industrial Operations. Existing and potential increase in industrial Noise from Wilson Street and Rail Infrastructure may potentially impacts upon proposed sensitive land uses. Potential to affect the primacy of BHP Billiton Port and Industrial Operations. Decommissioning and demolishing of the Spinifex Hill Waste Water Treatment Plant; Assessment and Identification of management responses	Preliminary assessment of Marine Fauna. Identifying management strategies to avoid or minimise any potential impacts to the marine turtle habitat on Cemetery and Pretty Pool Beaches. Employ Dust Management Task Force recommendations for Environmental Management Controls and Land Use Planning. Liaison with key industry and regulatory stakeholders Assessment of any Benthic Primary Producer and Mangrove Habitat, if required; Identification management responses. Identify potential requirement for Environmental Offsets, if required Coastal foreshore assessment and management strategy to avoid or minimise any potential impacts from coastal developments, if required. Modelling assessment of Flooding / Storm surge impacts. Identification management responses, with regard to flooding and storm surge, and indentify finished floor levels. Assessment of Terrestrial Flora and Vegetation Surface quality and quantity protection mechanisms required	ment um of 5

9. 10 11 12 13	 Potential impact upon terrestrial fauna, especially migratory birds, through habitat loss / alteration. Potential impact upon terrestrial flora and vegetation other than mangroves or BPPH. Risk of alteration of surface water quality in Pretty Pool and Four Mile Creek. Risk of unearthing Acid Sulfate Soils Potential contamination issues delays development. Risk of diminishing local ground water quality. Risk of placing sensitive land uses in areas where mosquito and midge are a potential issue. Three known occurrences of a Threatened reptile and one known occurrence of a Threatened bird occurring within Precinct 2 			A A A A A A	District Water Management Strategy required for managing storm surge / flooding events and control erosion when undertaking scheme amendments. Local Water Management Strategy required for managing storm surge / flooding events and control erosion and preparing structure plans. Urban Water Management Plan required when undertaking subdivision Preliminary Assessment of Acid Sulfate Soils Preliminary Site Investigation required to identify potential contamination issues. Development of sensitive land uses are recommended to be outside the required 50m buffer zone required for Petrol Station unless a site specific assessment is carried out to prove otherwise Development of sensitive land uses are recommended to be outside the required 1000m buffer zone required for Dampier Salt unless a site specific assessment is carried out to prove otherwise Development of sensitive land uses will need to be outside the required 50m buffer zone for DEC Contaminated site No.2 unless a site specific assessment is carried out to prove otherwise Ground water quality and quantity protection mechanisms required Assessment of local mosquito and midge populations Develop appropriate buffers distances for potential growth areas from sources of industrial noise or undertake preliminary Acoustics Assessment to determine noise levels related to transport and industrial levels of noise.		
BUILDING AND MAINTAINING INFRASTRUCTURE CAPACITY 8	 Existing infrastructure present. Existing WWTP is currently in the early stages of relocation. Some areas are affected by the WWTP buffer therefore limiting developable area in short term. Insufficient potable water supply to support future growth. Flooding in precinct is a problem. Significant fill / earthworks required to mitigate flood risk and meet Coastal Process Setback policy. Existing substation will limit growth beyond 2021. NBN Co. infrastructure not present. No existing reticulated domestic gas supply. Buffer for rail operations affect developable area. Existing/future TWA's/Short Stay Accommodation may provide a source of re-use water for non-potable purposes. Public Transport network needs upgrading. Identified road corridors need widening. 	potable water for non-potable activities. 2. Finalise water planning studies. 3. Finalise wastewater planning studies. 4. Finalise energy infrastructure study including electrical, solar, tidal and gas. 5. Incorporate NBN Co. requirements into new developments / infrastructure upgrade works. 6. Finalise fill study. 7. Coastal engineering	Timeframes associated West Canning Basin. Delays to relocation of the WWTP limit developable area. Capacity and timeframe for infrastructure implementation including roads, water, waste water, electricity and to a lesser extent gas are not consistent with growth requirements and constrain development. Insufficient suitable fill material identified to meet growth goals. Public transport infrastructure and road corridor widenings are not implemented in time to cater for the population growth resulting in congestion.	A A	Submit the ToPH Growth Plan to the WAPC's Infrastructure Co-ordination Committee (ICC) seeking endorsement. Engage with Water Corporation on water and wastewater supply solutions under the direction of the ICC. Engage with industry for alternative water supply solutions. Commence discussions with Horizon Power and Gas Authority on planning, supply and easement requirements. Ensure NBN Co. is informed of new development / infrastructure upgrade work. Consider interim infrastructure solutions to enable development to proceed. Engage with industry to identify fill opportunities (i.e. mine site overburden). Consider alternate housing construction types that are energy efficient and reduce the need for fill (e.g. undercroft parking). Identify areas above flood levels for short term development. Develop and implement a public transport strategy. Ensure critical road upgrades are included in the road works plans	ToPH DoP / WAPC Water Corporation Horizon Power NBN Co. Gas Authority Industry	Up to 10 years for West Canning Basin to be operational. Up to 7 years to relocate WWTP. Up to 5 years for additional substation site to be operational. Approx. 12 months to complete District Water Management Plan / 24 months for LWMS including monitoring. Approx. 6 months to complete and approve re-use water management plan and be ready to supply. Up to 2 years to complete a public transport strategy, and 2 years to implement it?????

APPENDICES

10.2 APPENDIX 2 - RISK ASSESSMENT OPTIONS

DESCRIPTION				Action results
DESCRIPTION	Likelihood of occurrence	Consequence	Level Of Risk	Action requirements
LAND ASSEMBLY / LANDUSE / PLANNING				
Protracted land assembly required due to multiple landowners.	3	4	12	Implementation of Growth Plan land use recommendations through statutory planning frameworks (zonings, development requirements etc) providing incentive for development/redevelopment.
Protracted land assumbley due to land tenure issues (e.g. Native Title or other)	4	3	12	Relocation of Racecourse, Pony Club, Waste Water Treatment Plan (WWTP) in a timely manner. Resolution of Native Title Issues.
Lack of coordination between agencies to implement an engineering and planning framework to facilitate development	3	4	12	Preparation of pilbara inplementation plan underway. Risk that engineering does not accommodate planned growth. Advocacy with pilbara cities to commit to release of implementation plan
Protracted land use change required due to existing land uses that are viable for the medium term (10 to 15 years)	4	3	12	Relocation of Racecourse, Pony Club, Waste Water Treatment Plan (WWTP) in a timely manner. Resolution of Native Title Issues.
Current proposed land use conflicts with planned development (industry or major project) resulting in delayed or compromised development.	2	4	8	Potential for industrial/residential (dust) conflicts similar to Precinct 1 in western portions of Precinct 2 if industrial nearby industrial activity intensifies.
Land assembly required for infrastructure supply is delayed due to lack of timing, government support and/or utility planning, resulting in delay in development. Land assembly likely to be offsite but potentially still an issue.	3	5	15	Prioritise WWTP relocation timeframes.
New criteria e.g. coastal vulnerability results in significant filling/development requirements	5	3	15	Certainty on future fill level to drive co-ordination. Investigation of built form design solutions to respond to challenges. Acknowledgement and consideration of Coastal Process Setbacks as per State Coastal Planning Policy
Land requirements for drainage management compromise the development of the Precinct. Insufficient land area available for drainage corridors and compensation.	2	4	8	Drainage management' less of an issue for this precinct compared to dealing with 'Storm Surge' events, which may be more appropriately dealt with by coastal defences (which are potentially less demanding than drainage routes in terms of land requirements) and final floor levels for new development.
Land Area requirements not preserved for future infrastructure or freight / transport corridors leading to unacceptable delays (e.g. structure plan approval) to further development whilst this is being resolved.	2	3	6	corridors established. Potential infrastructure freight conflicts resolved through separation / using existing infrastructure.
Lack of proactive decision on land use planning results in non-optimum use of land	3	4	12	Moderate/significant risk at LGA level due to significant immediate development pressures. Initiation of the growth plan will need endorsement in a timely manner.
Existing residential (or other land-use) areas compromise the development potential of the Precinct	3	4	12	as above
Land requirements for POS and recreation not prioritised over residential, industrial and commercial uses.	3	4	12	Consider connections to other precincts. Balance between local level POS VS district POS requirements.
Impact of indusrial areas encroaching into development zones	3	3	9	Intensification of nearby industrial uses (stockpiles etc) - potential for similar dust problems as West End?
INFRASTRUCTURE SUPPLY / EARTHWORKS				
Water supply infrastructure not available due to uncertainty over underlying supply capacity	5	5	25	Supply authority to complete planning. Government funding for delivery. Need to consider political communications. Investigate water saving measures / alternative supply methods.
Water supply infrastructure not available due to required works not being implemented in a timely fashion by utilities	5	5	25	refer above
Water BHP's contractual requirements for water restrict further growth	5	5	25	negotiate with BHP and other mining firms for overall water solutions. Alternative water solutions for industry use.
Water West Canning Basin not suitable supply source or cost prohibitive to use	3	5	15	refer above
Recycled Water provisions for irrigation not being implemented in conjuction with POS and landscape projects.	2	4	8	
Wastewater Footprint / buffer required by upgraded South Hedland WWTP restricts growth to west of South Hedland	4	3	12	n.a
Wastewater Rehab / decontamination of Port Hedland WWTP cost prohibitive to provide to suitable level for development	3	5	15	reduces a large area of land earmarked for residential development
Wastewater infrastructure not available due to uncertainty over underlying supply capacity	4	4	16	refer 29
Wastewater infrastructure not implemented by utilities	5	5	25	wastewater infrastructure not implemented by utilities - system at capacity.

DESCRIPTION	DESCRIPTION Action requirements			
DESCRIPTION	Likelihood of occurrence	Consequence	Level Of Risk	Action requirements
Power supply infrastructure not available due to uncertainty over underlying supply capacity. (local level)	3	3	9	not currently an issue for localised development but implementation of growth plan will be an issue.
Power supply infrastructure not available due to required works not being implemented in a timely fashion by utilities (scheme level)	3	5	15	demand management and total network management.
Power overhead transmission lines restrict developable areas	5	2	10	some overhead transmission, appears to follow road alignments
Gas supply infrastructure not available due to uncertainty over underlying supply capacity	3	3	9	residences not likely to be reliant on gas
Gas supply infrastructure not available due to required works not being implemented in a timely fashion by utilities	3	3	9	as above
Gas establishment cost restrictions prevent any organisation from providing reticulated gas	3	3	9	as above
Roads Timeframe for MRWA/LGA implementation of required trunk road infrastructure is not consistent with development requirements	4	3	12	
Drainage trunk infrastructure planning delays project	5	4	20	coastal planning and flood studies available for this area
Drainage required fill levels due to stormwater / flooding / storm surge restrict developable areas	5	4	20	flooding expected to impact precinct
Drainage calculation of minimum heights for flooding / storm surge not sufficient resulting in unacceptable frequency of flooding	2	3	6	large quantities of data exist in this area which should minimise risk of poor reporting.
Telecommunication trunk infrastructure not implemented in a timely fashion	3	2	6	wireless technology available for short term if necessary
Telecommunication resultant delays from NBN Co becoming communications provider	3	2	6	as above
Telecommunications roll out of NBN Co delayed in some areas due to not meeting initial criteria (i.e. not greater than 100 lots, not a greenfield site).	3	2	6	as above
Earthworks fill material from BHP dredging / PHPA mangrove repropagation works not suitable for use on development sites	4	5	20	fill required
Earthworks fill material from BHP dredging / PHPA mangrove repropagation availability not meeting development timing.	4	5	20	as above
Earthworks costs to provide fill material from BHP dredging / PHPA mangrove propagation works prohibitive	4	5	20	as above
FINANCIAL / ECONOMIC				
Questionable project feasibility in tourism developments due to high land and construction costs	5	4	20	Straight tourism developments lacking in critical mass (250 rooms plus) have poor viability. Mixed use development models preferred, supported by strong residential offering in enhance feasibility.
Difficulties in securing construction labour force for smaller projects	5	3	15	Approve short-term (5-10 year) Property sector-specific TWAs on freehold sites for timely provision of labour for major development and non-mining infrastructure projects.
Size and growth of mining sector makes proportional economic diversification difficult	5	2	10	Focus on absolute growth of non-mining sectors, rather than their share of the economy.
Housing affordability constrains attraction of resident labour fource	4	4	16	Market intervention to enable supply required. Isolate mining sector demand from normal housing market through more structured TWA supply. Joint tenure strategies / partnerships. Require certainty on future mining accom
Lack of choice in property markets and housing type mix	3	3	9	Flexibility in product mix and responding to the market.
Insufficient supply pipeline to accommodate short term spikes	5	5	25	Provide long serviced and zoned land supply pipeline of 15-20 years to buffer against spikes. Increase flexibility of TWA and non-formal residential developments to reduce traditional residential market exposure to mining volatility.
Emphasis on high density undermines project feasibility due to higher construction costs	4	3	12	Focus on population density outcomes of development, rather than height. Includes consideration of small lots housing, townhouses and terrace housing and medium density apartments.
Burden on funding critical infrastructure is too great on developers, raising land prices and worsening affordability	4	4	16	Combination of genuine Government investment in enabling infrastrucutre, coupled with examination of
Lack of home ownership decreases "buy-in" to Port Hedland and impacts ability to grow residential population	3	3	9	Increasing housing diversity will allow individual household types to access suitable accommodation, reducing frictional factors that undermine home ownership. Introduction of long-term rental and rent-to-buy schemes to enable households to transition into home ownership will assist. General reductions in entry level house prices.
Lack of business accommodation in short-term constrains capacity for businesses to grow and develop new accommodation	3	2	6	Encourage and promote home-based businesses for small businesses so economic activity is not lost. Support delivery of commercial office space in mixed use development to increase supply in medium term.
Construciton Costs and seasonality impact development and undermine delivery of affordable housing.	4	4	16	Need to recognise a optimal price point is above Perth due to seasonality of development and elevated construction costs. Examine alternate construction materials and methods.

APPENDICES

DESCRIPTION	Likelihood of occurrence	Consequence	Level Of Risk	Action requirements
Risk profile of Port Hedland decreases investor willingness to invest, despite strong return potential.	3	3	9	Increase information supply to market on state of Port Hedland population growth, major projects as well as housing supply. Support demonstration projects for different development types and prepare preliminary business cases on development types for use by private sector organisations securing finance or internal decision making.
Housing costs impact business operational viability, due to need to provide accommodation to workers directly or through subsidies.	3	3	9	Encourage delivery of house and business accommodation packages, either through shop-top housing or joint sale deals. Address housing affordbility and access (above)
Theoretical land supply indicates sufficient availability while fragmentation and lack of choice constrain market.	3	3	9	Lack of choice undermines activity and results in a lack of economic development and diversification. Creating of multiple economic and residential growth fronts, to maximise choice, is critical to facilitating economic growth.
Efforts to reduce house prices to enhance affordability is met with strong resisitance from existing households and landowners.	4	2	8	Increased critical mass of housing demand (through population growth) will lead to segmentation of the housing market. This will allow house prices in high amenity locations to remain at current levels, while entry level price points a reduced significiantly.
Current shortage and lack of diversity in retail offering undermines attractiveness of Port Hedland as a residential location.		2	6	Encourage increased retail offering as part of mixed use developments in the short-term (leveraging off demand for accommodation), while supporting delivery of a diversified retail offering including bulky goods, café and restaurants, main street and shopping centre based retail.
Current industry structure lacks innovation and knowledge intensity, decreasing long-term sustainability of local economic activity	3	2	6	Promote industry specific research and innovation through delivery of a dedicated facility and facilitation of industry/research partnerships.
Lack of long-term certainty regarding mining sector investment undermines non-mining investment and decreases attractiveness of Port Hedland to permanent migration	3	3	9	Increase information supply on mining and other major investments to the market and general public, particularly Government investment in infrastructure.
Mining sector involvement in the housing market continues to distort prices and undermine affordability.	4	4	16	Isolate construction and other cyclical workers of mining sector away from broader housing market, through increased provision of TWAs.
ENVIRONMENTAL	<u>. </u>			
Alteration of coastal environment through creation of coastal development	3	3	9	Identifying coastal management strategies to avoid or minimise any potential impacts to Pretty Pool Creek / Pretty Pool Beach / Cooke Point / Four Mile Beach
Alteration in marine water quality through construction of onshore marina / formalisation of spoil bank	3	2	6	Identifying marine water quality management strategies to avoid or minimise any potential impacts to Cemetery, Pretty Pool and Four Mile Beaches
Alteration or loss Mangrove / BPPH	4	4	16	Assessment of Benthic Primary Producer and Mangrove Habitat; Identification management responses. Potential requirement for Environmental Offsets
Infrastructure damage or loss due to stormsurge and flooding	4	4	16	Assessment of Flooding / Storm surge impacts; Identification management responses
Alteration or loss of habitat for Marine fauna	2	3	6	Identifying management strategies to avoid or minimise any potential impacts to the marine fauna, including the turtle habitat on Cemetery Beach and Pretty Pool Beaches
Light Spill adversely affecting the navigation of turtles and other marine fauna.	5	4	20	Conduct a Light Impact Assessment
Risk to human health posed by Dust	5	4	20	Employ Dust Management Task Force recommendations for Environmental Management Controls and Land Use Planning. Liaison with key industry and regulatory stakeholders
Odour impacts upon sensitive land uses	0	0	0	n/a
Alteration or loss of habitat for Terrestrial fauna	3	4	12	Assessment of Terrestrial Fauna; Identification management responses
Alteration or loss of Terrestrial Vegetation	4	4	16	Assessment of Terrestrial Flora and Vegetation; Identification management responses
Infrastructure damage or loss caused by flooding / failure of the drainage network	3	3	9	Employ appropriate Water Management Strategies for managing storm surge / flooding events and control erosion when undertaking planning activities
Decline in surface water quality	4	3	12	Surface quality and quantity protection mechanisms
Acidification and release of heavy metals into groundwater and surrounding environments caused by exposure to Acid Sulfate Soils	2	3	6	Assessment of Acid Sulfate Soils; Identification management responses
Site contamination and contamination of surrounding environment	4	2	8	Various Asessmement required
Decline in ground water quality	2	2	4	Ground water quality and quantity protection mechanisms.

DESCRIPTION	Likelihood of occurrence	Consequence	Level Of Risk	Action requirements
Decline in local amenity due to midges and mosquiotoes	3	3	9	Assessment of local mosquito and midge populations; Identification management responses.
Noise impacts upon sensitive land uses	5	4	20	Develop appropriate buffers distances for potential growth areas from sources of industrial noise or undertake preliminary Acoustics Assessment to determine noise levels related to transport and industrial levels of noise.

RISK LIKELIHOOD RATINGS

	LIKELIHOOD						
Rating	Description						
5	Event almost certain to occur						
4	Event likely to occur						
3	Event could possibly occur						
2	Event is unlikely to occur						
1	Event may occur only in exceptional circumstances						

THE RISK MATRIX

The risk matrix combines the consequence and likelihood of a risk event to develop a rating for a risk. This rating is then applied to prioritise management of the identified risks.

The Risk Matrix adopted for this project is shown below.

	1 2 3 4 5 CONSEQUENCE RATING									
	1	1	2	3	4	5				
LIKELIHOOD RATING	2	2	4	6	8	10				
ATIN	3	3	6	9	12	15				
00 10 10	4	4	8	12	16	20				
	5	5	10	15	20	25				

RATING DESCRIPTION AND RESPONSE REQUIREMENT

Extreme risk. Unacceptable exposure.

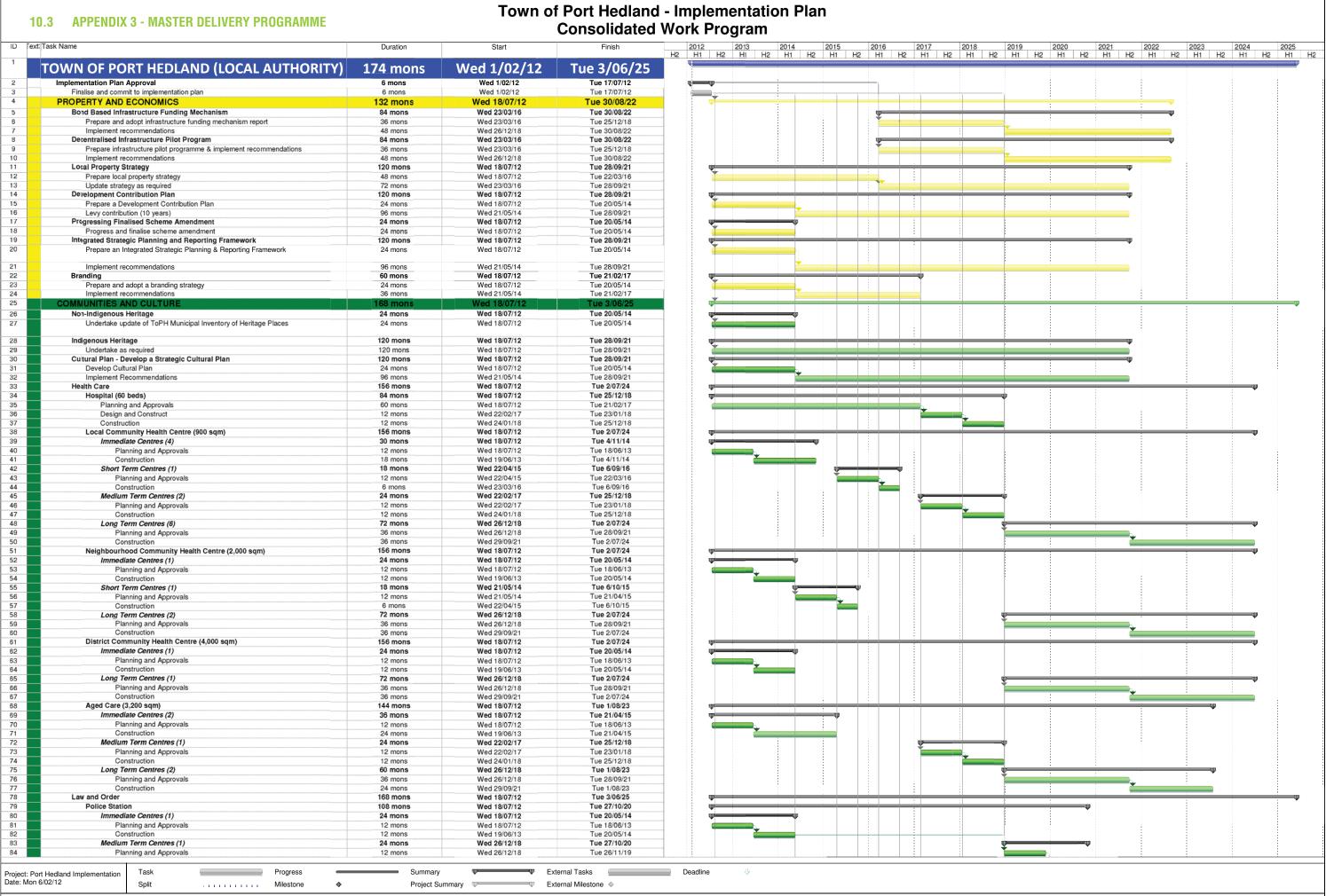
Immediate action required

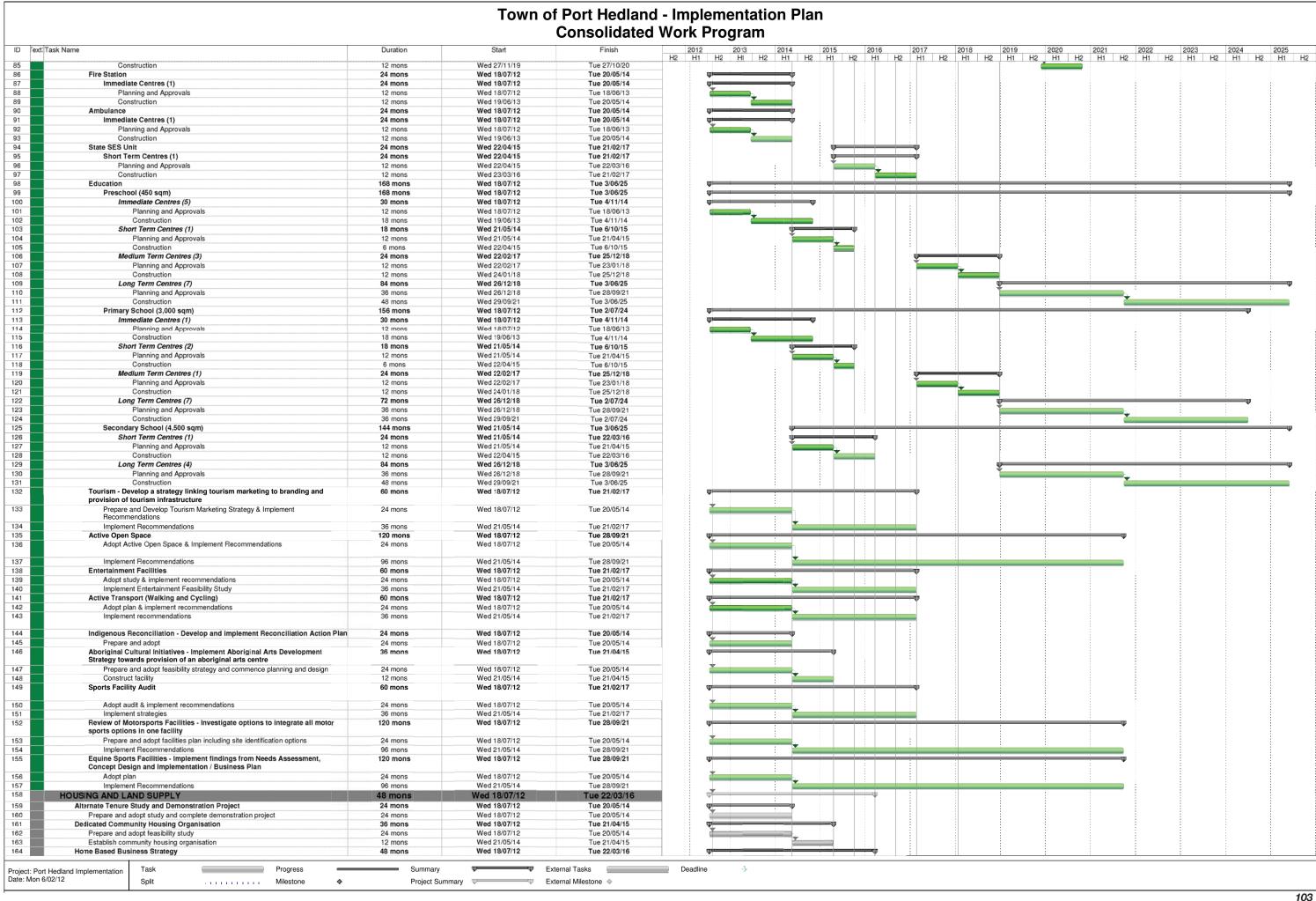
High to Moderate risk. Urgent management control/attention required *Management responsibility must be specified and risks monitored*

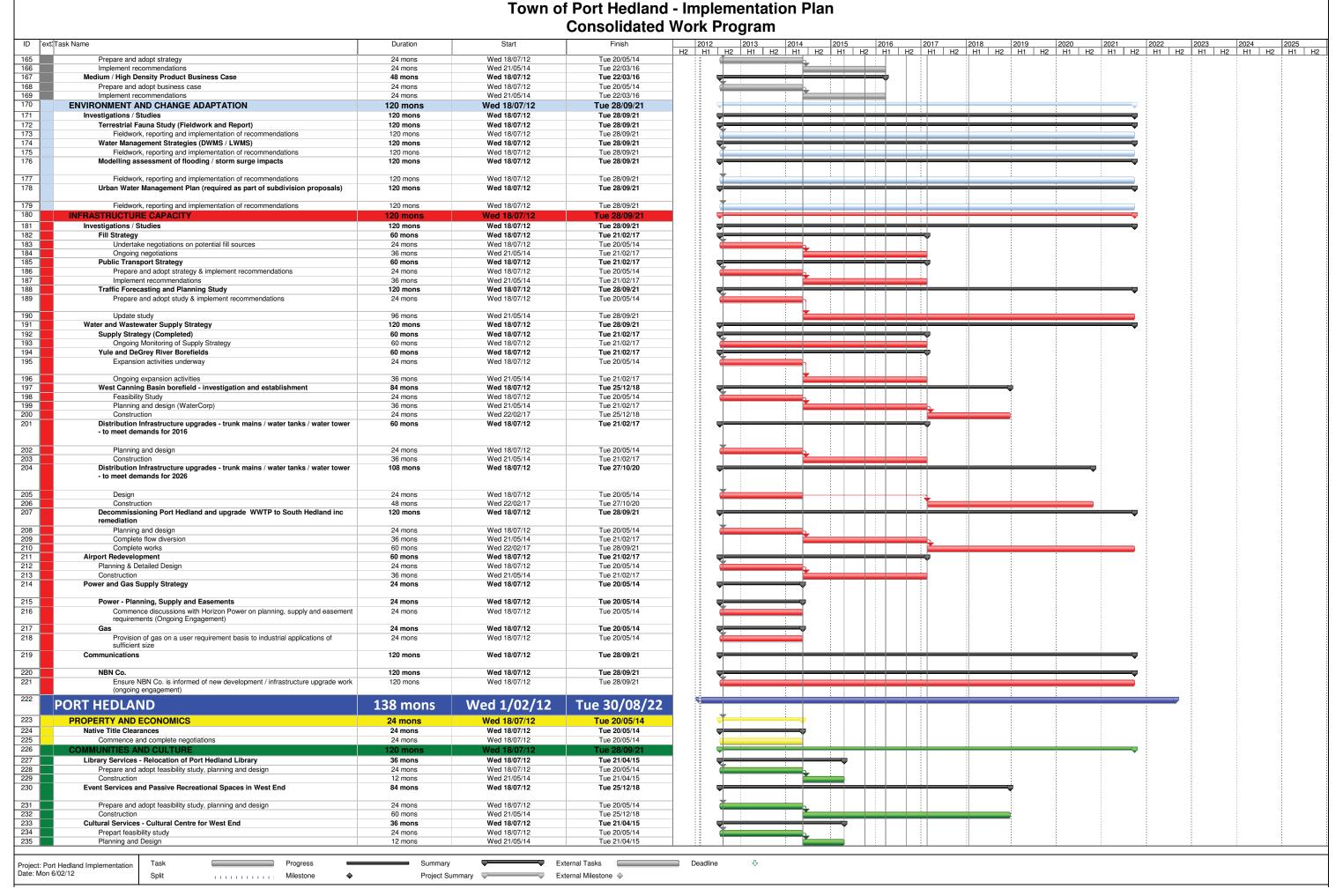
Moderate to High risk. Management control required.

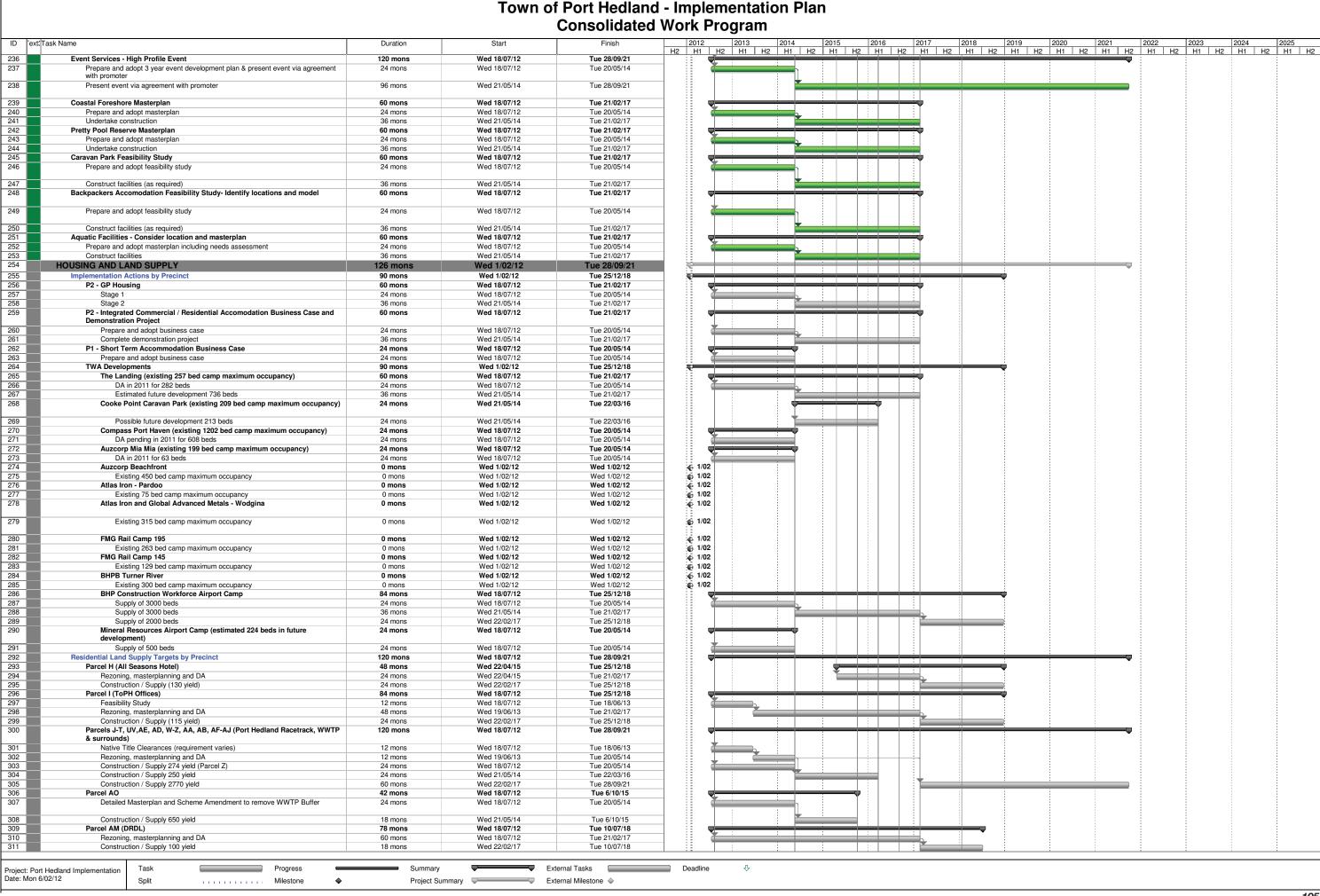
Management responsibility must be specified and risks monitored

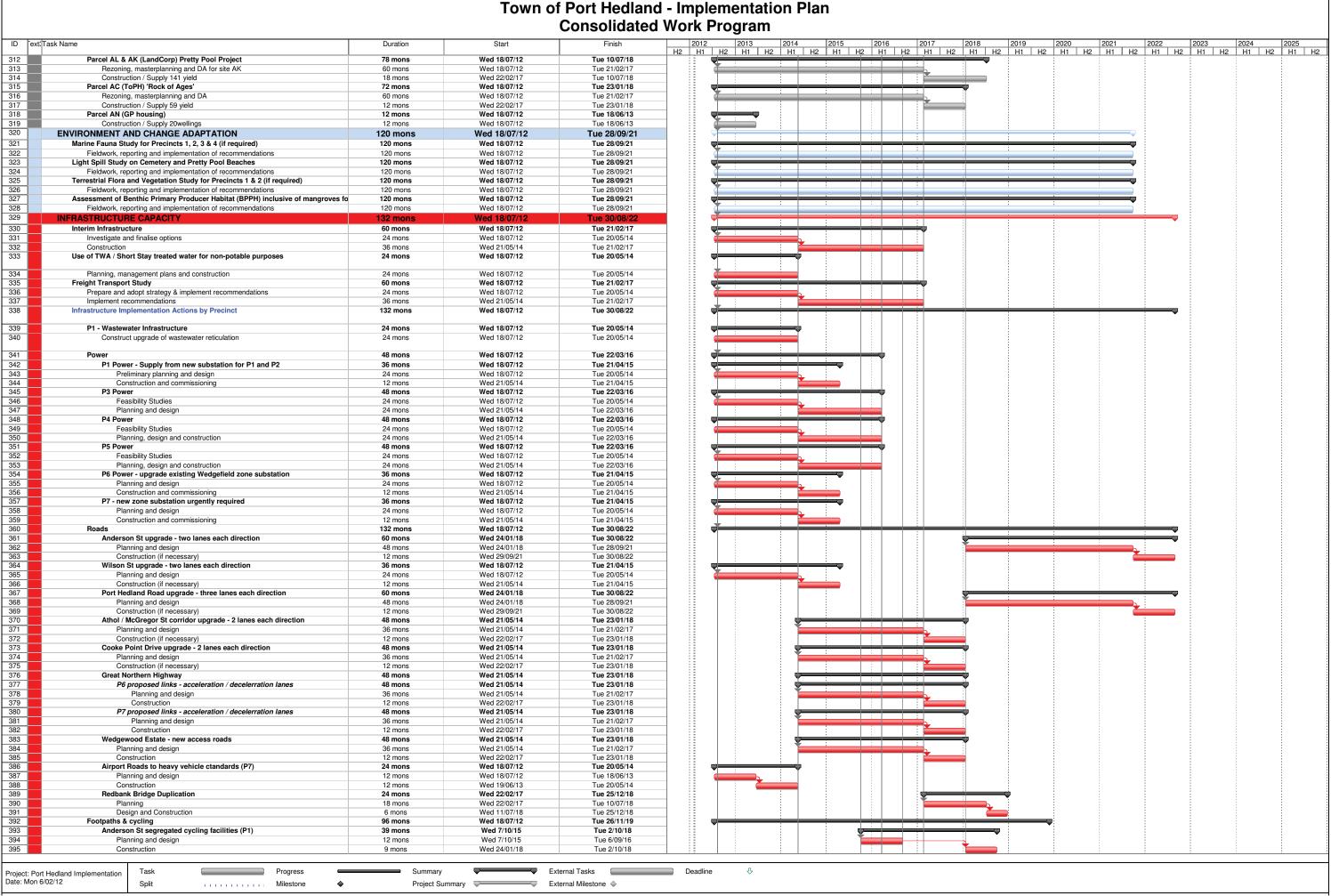
Low risk. Monitor by routine procedures and controls. *Manage using routine procedures*





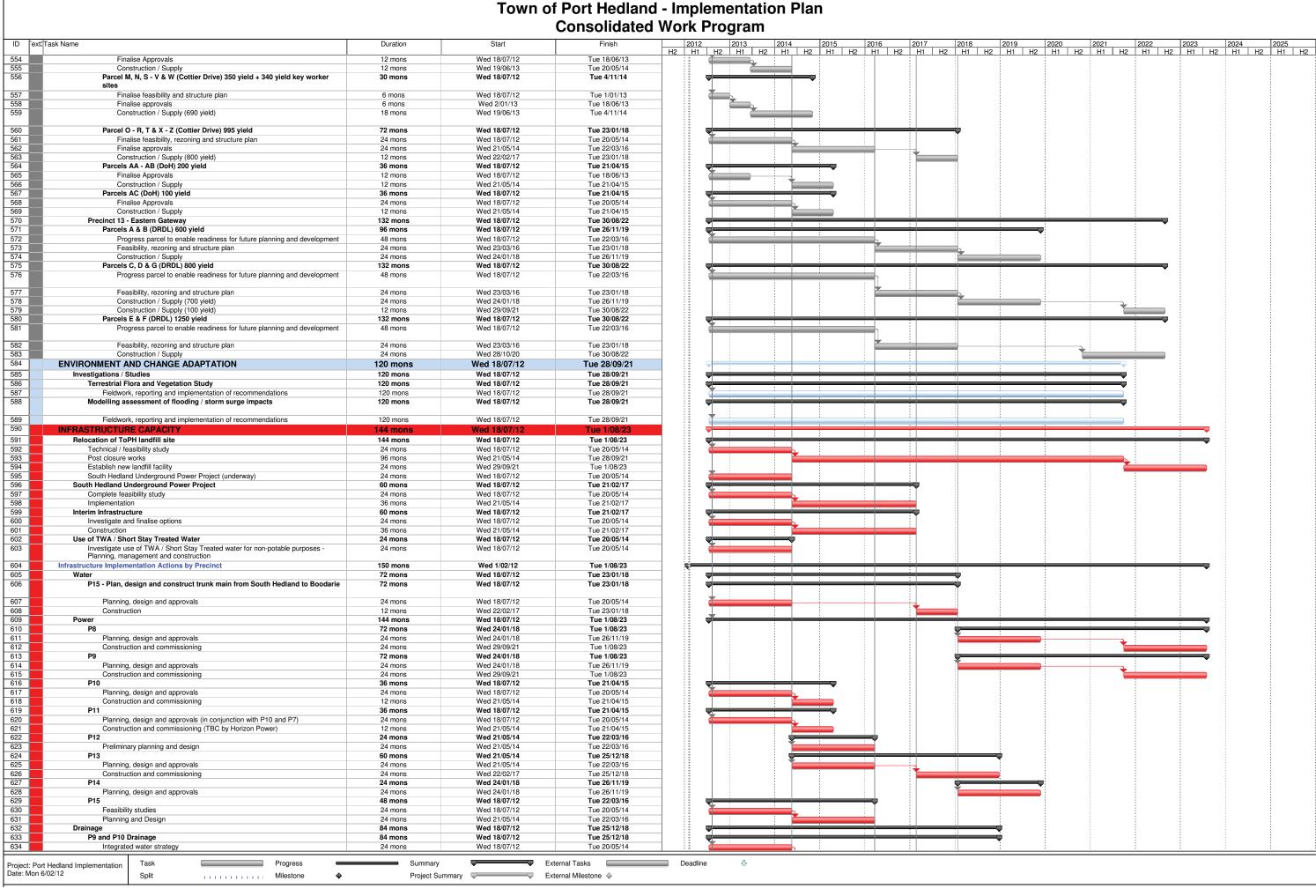




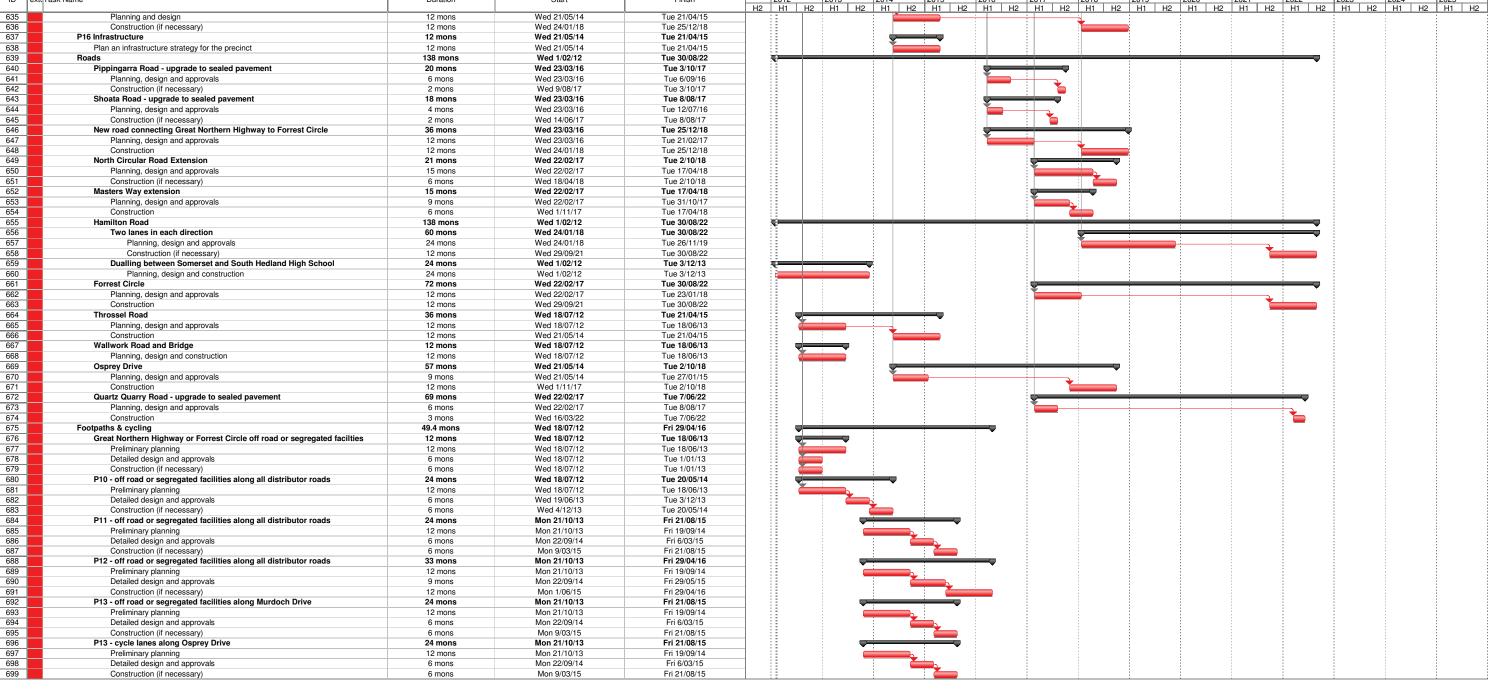


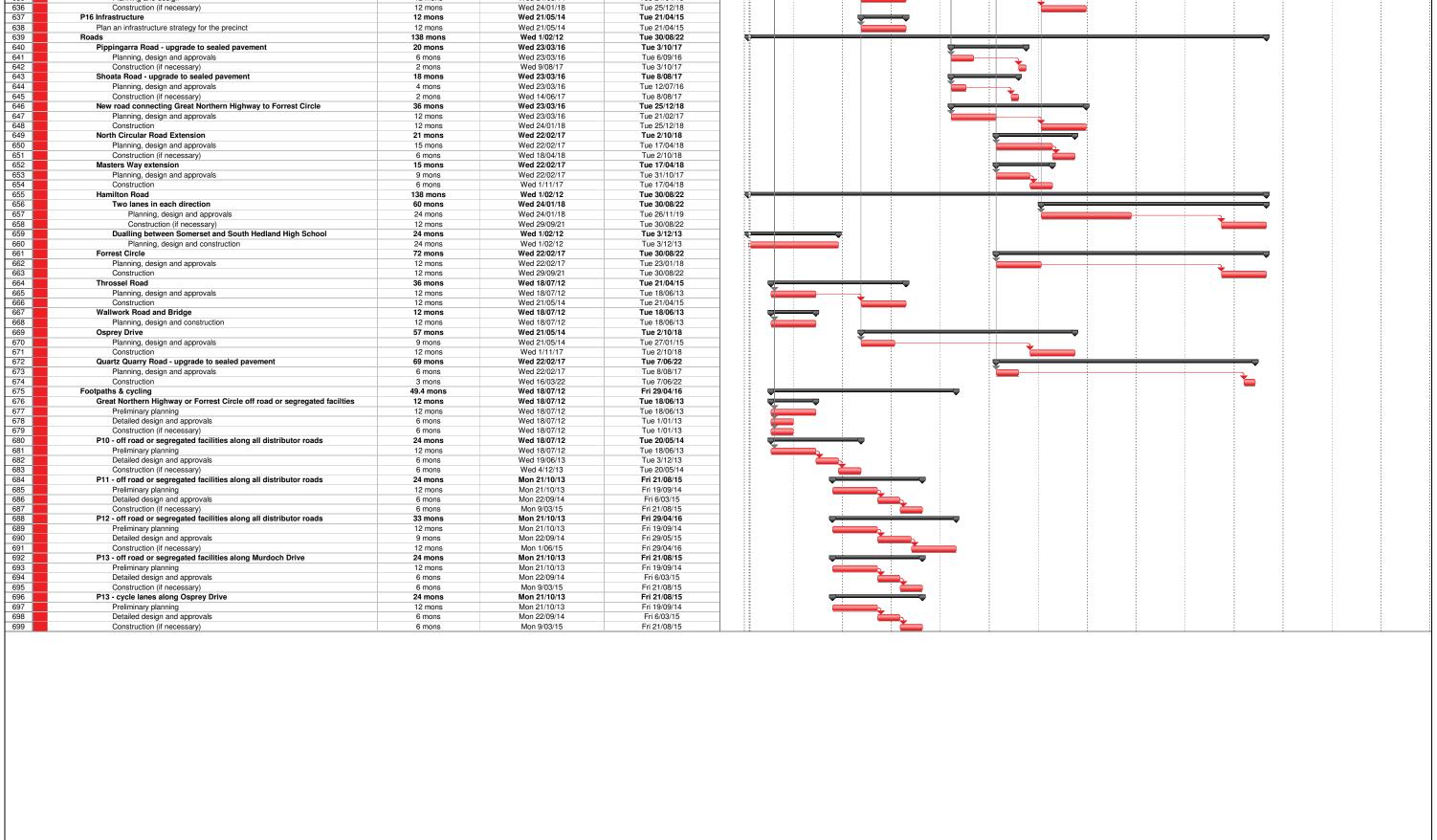
	Wedge St cycle lanes Planning and design Construction Edgar St cycle lanes Planning and design Construction McKay St cycle lanes Planning and design Construction McKay St cycle lanes Planning and design Construction Acton St cycle lanes Planning and design Construction Howe St cycle lanes Planning and design Construction Sutherland St - of road coastal shared path (P1) Planning and design Construction	Duration 39 mons 12 mons 6 mons 39 mons 12 mons 6 mons 39 mons 12 mons 6 mons 39 mons 12 mons 6 mons 39 mons 12 mons 6 mons 39 mons 12 mons 6 mons 6 mons 6 mons 6 mons 6 mons	Start Wed 7/10/15 Wed 7/10/15 Wed 18/04/18 Wed 7/10/15 Wed 7/10/15 Wed 18/04/18 Wed 23/03/16 Wed 23/03/16	Tue 2/10/18 Tue 6/09/16 Tue 2/10/18 Tue 2/10/18 Tue 6/09/16 Tue 2/10/18 Tue 19/03/19 Tue 21/02/17 Tue 19/03/19	2012 2013 2 H1 H2 H1 H2	2014 2015 H1 H2 H1 H	2016 2017 2 H1 H2 H1	2018 H2 H1 H2		020 202 H1 H2 H			023 H1 H2
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	Planning and design Construction Howe St cycle lanes Planning and design Construction Sutherland St - off road coastal shared path (P1) Planning and design	12 mons 6 mons 39 mons 12 mons	Wed 23/03/16 Wed 3/10/18						-				
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	Planning and design Construction Sutherland St - off road coastal shared path (P1) Planning and design		Wed 23/03/16	Tue 19/03/19					=				
	Sutherland St - off road coastal shared path (P1) Planning and design	6 mons	Wed 23/03/16	Tue 21/02/17									
	Planning and design		Wed 3/10/18	Tue 19/03/19					-				
		39 mons	Wed 7/09/16	Tue 3/09/19			V						
	Odristiaction	12 mons 6 mons	Wed 7/09/16 Wed 20/03/19	Tue 8/08/17 Tue 3/09/19					—				
	Anderson St - off road or segregated cycle facilities extended)	42 mons	Wed 7/09/16	Tue 26/11/19				- 1					
	Planning and design	12 mons	Wed 7/09/16	Tue 8/08/17				 					
	Construction	9 mons	Wed 20/03/19	Tue 26/11/19									
	Athol St - off road or segregated cycle facilities	39 mons	Wed 7/09/16	Tue 3/09/19									
	Planning and design Construction	12 mons	Wed 7/09/16	Tue 8/08/17 Tue 3/09/19				-	—				
	Construction Cooke Point / Pretty Pool - Pedestrian Bridge Link	6 mons	Wed 20/03/19 Wed 18/07/12	Tue 3/09/19 Tue 4/11/14									
	Planning and Design	24 mons	Wed 18/07/12 Wed 18/07/12	Tue 20/05/14		<u> </u>							
	Construction	6 mons	Wed 21/05/14	Tue 4/11/14									
н	IEDLAND	150 mons	Wed 1/02/12	Tue 1/08/23							:	:	
	TIES AND CULTURE	120 mons	Wed 18/07/12	Tue 28/09/21	+				:	1			
	Services - South Hedland Town Centre	36 mons	Wed 18/07/12	Tue 21/04/15	-								
	sibility study, planning and design	24 mons	Wed 18/07/12	Tue 20/05/14		—							
	ervices - Design and build youth space / skate park in South Hedland Town	12 mons 24 mons	Wed 21/05/14 Wed 18/07/12	Tue 21/04/15 Tue 20/05/14									
	nning, design and construction	24 mons	Wed 18/07/12	Tue 20/05/14									
	nal Cultural Initiatives - Design and build an Aboriginal Cultural Centre	36 mons	Wed 18/07/12	Tue 21/04/15									
	earch Institute in South Hedland Town Centre			_	↓ ↓								
	nning and design	24 mons 12 mons	Wed 18/07/12	Tue 20/05/14 Tue 21/04/15		—							
	op Civic Centre - Design and build a Civic Centre in South Hedland Town	36 mons	Wed 21/05/14 Wed 18/07/12	Tue 21/04/15									
tre	5p 5:110 55:110 25:110 25:110 55:110 11 15:110 15:1	00 mono	1100 10/01/12	100 21/0 1/10	Y	Y							
Planı	nning and design	24 mons	Wed 18/07/12	Tue 20/05/14									
	nstruction	12 mons	Wed 21/05/14	Tue 21/04/15									
	edland Aquatic Centre (SHAC)	24 mons	Wed 18/07/12	Tue 20/05/14									
	nstruct Stage 1 of masterplan b - masterplan and redevelopment of golf club	24 mons 120 mons	Wed 18/07/12 Wed 18/07/12	Tue 20/05/14 Tue 28/09/21									
	sterplan	24 mons	Wed 18/07/12	Tue 20/05/14		<u> </u>					•		
	lement recommendations	96 mons	Wed 21/05/14	Tue 28/09/21									
	ian Precinct - masterplan and implement redevelopment of equestrian sincl. turf club	120 mons	Wed 18/07/12	Tue 28/09/21									
Pren	pare and adopt masterplan including needs assessment	24 mons	Wed 18/07/12	Tue 20/05/14									
	lement recommendations	96 mons	Wed 13/07/12 Wed 21/05/14	Tue 28/09/21	T T	<u> </u>		-					
	edland Bowling and Tennis Club	24 mons	Wed 18/07/12	Tue 20/05/14									
	nning, design and construction	24 mons	Wed 18/07/12	Tue 20/05/14									
	arland Reserve	60 mons	Wed 18/07/12	Tue 21/02/17									
	pare and adopt masterplan, planning and design lement recommendations	24 mons 36 mons	Wed 18/07/12 Wed 21/05/14	Tue 20/05/14 Tue 21/02/17	9								
	Services - Upgrade Matt Dann Cultural Centre	24 mons	Wed 21/05/14 Wed 18/07/12	Tue 21/02/17 Tue 20/05/14		-							
	ipment and infrastructure upgrade, facility additions	24 mons	Wed 18/07/12	Tue 20/05/14									
	AND LAND SUPPLY	144 mons	Tue 17/07/12	Tue 1/08/23				1	<u> </u>		:	:	
	g and Land Supply Actions by Precinct	60 mons	Tue 17/07/12	Tue 21/02/17	—	 							
	- Key worker housing located in South Hedland town centre	60 mons	Wed 18/07/12	Tue 21/02/17	-		•						
	Prepare and adopt business case	24 mons	Wed 18/07/12	Tue 20/05/14									
	Construct facility - Short Term Accomodation Business Case	36 mons	Wed 21/05/14 Wed 18/07/12	Tue 21/02/17 Tue 21/02/17									
	Prepare and adopt business case	24 mons	Wed 18/07/12 Wed 18/07/12	Tue 20/05/14		<u> </u>							
	Implement recommendations	36 mons	Wed 21/05/14	Tue 21/02/17									
	A Developments	36 mons	Tue 17/07/12	Tue 21/04/15	V	: •							
	The Lodge South Hedland (existing 450 bed camp maximum occupancy)	0 mons	Tue 17/07/12	Tue 17/07/12	17/07								
	The Lodge South Hedland Blackrock Caravan	0 mons	Tue 17/07/12	Tue 17/07/12 Tue 17/07/12	↓ 17/07↓ 17/07								
	Blackrock Caravan (unknown)	0 mons 0 mons	Tue 17/07/12 Tue 17/07/12	Tue 17/07/12 Tue 17/07/12	17/07								
	ESS Pundulmurra	0 mons	Tue 17/07/12	Tue 17/07/12	17/07								
	ESS Pundulmurra (existing 450 bed camp maximum occupancy)	0 mons	Tue 17/07/12	Tue 17/07/12	♦ 17/07								
	FMG Club Hamilton	24 mons	Wed 18/07/12	Tue 20/05/14	4	- 							
	DA approved in 2011 for 444 beds	24 mons	Wed 18/07/12	Tue 20/05/14	<u> </u>								
	Gateway Village Area A	24 mons	Wed 18/07/12	Tue 20/05/14									
	DA approved in 2011 for 1333 beds Auzcorp Area B	24 mons 12 mons	Wed 18/07/12 Wed 21/05/14	Tue 20/05/14 Tue 21/04/15									
	Estimated 400 bed future camp	12 mons 12 mons	Wed 21/05/14 Wed 21/05/14	Tue 21/04/15 Tue 21/04/15									
	ToPH Recreation Reserve 31895	12 mons	Wed 21/05/14 Wed 21/05/14	Tue 21/04/15									
	Estimated 400 bed future camp	12 mons	Wed 21/05/14	Tue 21/04/15									
	tial Land Supply Targets by Precinct	144 mons	Wed 18/07/12	Tue 1/08/23	-			1	<u> </u>			-	
	cinct 10 - 'Western Edge'	144 mons	Wed 18/07/12	Tue 1/08/23				<u>i</u>					
	Parcel A & B (970 yield)	72 mons	Wed 18/07/12	Tue 23/01/18	:: 🔻				i	i	i	i_	

Town of Port Hedland - Implementation Plan Consolidated Work Program Start 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 H2 H1 H2 477 Wed 18/07/12 Tue 18/06/13 Construction / Supply (430 yield) 12 mons Construction / Supply (540 yield 12 mons 479 Parcel C & D (Compass Group) 390 yield 84 mons Wed 18/07/12 Tue 25/12/18 480 Finalise DA 6 mons Wed 18/07/12 Tue 1/01/13 Construction / Supply (390 vield) 481 Wed 22/02/17 Tue 25/12/18 24 mons Parcel F - H (Auzcorp) 335 yield Wed 18/07/12 Tue 21/04/15 483 Wed 18/07/12 Tue 20/05/14 Finalise DA 24 mons 484 485 Construction / Supply (335 yield) Wed 21/05/14 Tue 21/04/15 12 mons Parcels I - J and L (LandCorp) 870 yield Wed 18/07/12 Tue 21/04/15 486 487 Due diligence / feasibility study 12 mons Wed 18/07/12 Tue 18/06/13 Masterplanning and DA 12 mons Wed 19/06/13 Tue 20/05/14 488 Wed 21/05/14 Tue 21/04/15 Construction / Supply (395 yield 12 mons 489 Parcels M - Y & AB (Western Edge Project) 1640 yield Wed 18/07/12 Tue 21/04/15 490 Due diligence / feasibility stud 12 mons Wed 18/07/12 Tue 18/06/13 491 Masterplanning and DA Wed 19/06/13 Tue 20/05/14 12 mons 492 Construction / Supply (1640 yield) Wed 21/05/14 Tue 21/04/15 12 mons 493 Portion Parcel Z & Parcel AA (DRDL) Wed 18/07/12 144 mons Tue 1/08/23 Wed 18/07/12 494 Tue 23/01/18 Native Title Clearances 72 mons 495 Wed 24/01/18 Tue 26/11/19 Planning Scheme Amendments 24 mons 496 Wed 27/11/19 Masterplanning and DA 24 mons Tue 28/09/21 497 Construction / Supply (3300 yield) 24 mons Wed 29/09/21 Tue 1/08/23 498 Precinct 11 - 'South Hedland City Centre' Wed 18/07/12 Tue 23/01/18 72 mons Parcel A (Humphrey) 105 yield 499 Wed 18/07/12 Tue 3/12/13 500 Finalise DA 6 mons Wed 18/07/12 Tue 1/01/13 501 502 Construction / Supply 12 mons Wed 2/01/13 Tue 3/12/13 Wed 18/07/12 Parcel B (Pilbara Health) 60 yield 18 mons Tue 3/12/13 503 504 505 Finalise Approvals 6 mons Wed 18/07/12 Tue 1/01/13 Construction / Supply 12 mons Wed 2/01/13 Tue 3/12/13 Parcel C & D (LandCorp) 160 vielo Wed 18/07/12 Tue 3/12/13 18 mons 506 507 508 Wed 18/07/12 Tue 1/01/13 Finalise tender and site planning 6 mons Construction / Supply Wed 2/01/13 Tue 3/12/13 Parcel E (Pilbara Health / LandCorp) 120 yield 30 mons Wed 18/07/12 Tue 4/11/14 509 510 Wed 18/07/12 Finalise Land Transactions Tue 3/12/13 18 mons Wed 4/12/13 Tue 4/11/14 511 Parcel F (LandCorp) 50 yield 30 mons Wed 18/07/12 Tue 4/11/14 512 513 Finalise Land Transactions 24 mons Wed 18/07/12 Tue 20/05/14 Wed 21/05/14 Tue 4/11/14 Construction / Supply 6 mons 514 Parcel G (ToPH / Shopping Centre) 10 yield Wed 18/07/12 Tue 4/11/14 515 516 Finalise Land Transactio 24 mons Wed 18/07/12 Tue 20/05/14 Wed 21/05/14 Tue 4/11/14 Construction / Supply 6 mons Parcel H - J (LandCorp) 450 yield Wed 18/07/12 Tue 4/11/14 30 mons 518 519 520 Wed 18/07/12 Tue 3/12/13 Finalise Land Transactions 18 mons Construction / Supply 12 mons Wed 4/12/13 Tue 4/11/14 Parcel K (LandCorp) 160 yield 18 mons Wed 18/07/12 Tue 3/12/13 Finalise Land Transaction Wed 18/07/12 Tue 1/01/13 6 mons 522 12 mons Wed 2/01/13 Tue 3/12/13 523 Parcel M (WA Police) 20 yield Wed 21/05/14 Tue 4/11/14 6 mons 524 525 Construction / Supply 6 mons Wed 21/05/14 Tue 4/11/14 Parcel N & O (LandCorp) 25 yield 72 mons Wed 18/07/12 Tue 23/01/18 526 527 Wed 18/07/12 Tue 21/02/17 Finalise planning for expansion of existing retail / town centre developmen 60 mons 12 mons 528 Parcel P (LandCorp) 300 yield 72 mons Wed 18/07/12 Tue 23/01/18 529 Finalise Land Transaction 60 mons Wed 18/07/12 Tue 21/02/17 530 Wed 22/02/17 Tue 23/01/18 Construction / Supply 12 mons 531 Wed 18/07/12 Tue 23/01/18 Precinct 12 72 mons Parcels A & B (Cedar Woods) 140 yield Wed 18/07/12 532 Tue 6/10/15 42 mons 533 534 Finalise Land Transaction Wed 18/07/12 Tue 20/05/14 24 mons Wed 21/05/14 Tue 4/11/14 535 Wed 5/11/14 Tue 6/10/15 Construction / Supply 12 mons 536 537 Parcel C (Private) 12 yield 18 mons Wed 18/07/12 Tue 3/12/13 Masterplanning and DA 12 mons Wed 18/07/12 Tue 18/06/13 538 Wed 19/06/13 Tue 3/12/13 Constuction / Supply 6 mons 539 Wed 18/07/12 Tue 6/10/15 Parcel D (DoH) 154 vield 42 mons 540 Wed 18/07/12 Tue 20/05/14 Finalise Land Transaction 24 mons 541 Wed 21/05/14 Tue 6/10/15 Construction / Supply 542 Parcel E (Foundation Housing) 39 yield 30 mons Wed 18/07/12 Tue 4/11/14 543 544 545 546 547 Finalise Land Transaction 6 mons Wed 18/07/12 Tue 1/01/13 Wed 2/01/13 Tue 3/12/13 Finalise Approvals 12 mons 12 mons Tue 4/11/14 Parcel F (KMD JV) 150 vield 24 mons Wed 18/07/12 Tue 20/05/14 Finalise Approvals 12 mons Wed 18/07/12 Tue 18/06/13 548 Wed 19/06/13 Tue 20/05/14 Construction / Suppl 12 mons 549 Wed 18/07/12 Tue 21/04/15 Parcel H - K (Jaxon) 210 yield 36 mons 550 Finalise Land Transac 12 mons Wed 18/07/12 Tue 18/06/13 551 Finalise Approvals 12 mons Wed 19/06/13 Tue 20/05/14 552 Wed 21/05/14 Tue 21/04/15 Construction / Supply 12 mons 553 Wed 18/07/12 Tue 20/05/14 Task External Tasks Deadline Project: Port Hedland Implementatio Progress Date: Mon 6/02/12 Milestone External Milestone ♦ TITLE LITTER



Town of Port Hedland - Implementation Plan Consolidated Work Program 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 H2 H1 H2 ID Fext(Task Name Duration Start 635 Wed 21/05/14 Tue 21/04/15 Planning and design 12 mons Tue 25/12/18 Construction (if necessary) 12 mons P16 Infrastructure 12 mons Wed 21/05/14 Tue 21/04/15 Plan an infrastructure strategy for the precinct 12 mons Wed 21/05/14 Tue 21/04/15 Roads Wed 1/02/12 Tue 30/08/22 138 mons Pippingarra Road - upgrade to sealed pavement 20 mons Wed 23/03/16 Tue 3/10/17 Planning, design and approvals Wed 23/03/16 Tue 6/09/16 6 mons Construction (if necessary) 2 mons Wed 9/08/17 Tue 3/10/17 Shoata Road - upgrade to sealed pavement Wed 23/03/16 Tue 8/08/17 18 mons Wed 23/03/16 Tue 12/07/16 Planning, design and approvals 4 mons Wed 14/06/17 Tue 8/08/17 2 mons New road connecting Great Northern Highway to Forrest Circle 36 mons Wed 23/03/16 Tue 25/12/18





GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
PROPERTY & ECONOMICS	6 (PE)		
PE1	ALL	Establish an Infrastructure Funding Mechanism – Investigate establishment of a bond-based infrastructure funding mechanisms, linked to mining sector royalties, to draw on private sector investment of core infrastructure in the Pilbara generally and Port Hedland specifically.	Varying levels
PE2	ALL	Establish a decentralised Infrastructure Pilot Programme – Pilot programme to integrate decentralised energy and water infrastructure into new residential and commercial developments.	TBC (by ToPH)
PE3	ALL	Prepare a Development Contributions Plan — Pursuant to WAPC State Planning Policy 3.6 to promote the efficient and effective provision of public and community infrastructure which meets the demands arising from new growth and development.	Approx. \$380,000
PE4	1 & 2	Native Title Clearances – negotiations need to commence immediately, particularly in the East End if residential development is to occur in a timely fashion.	Varying levels
PE5	ALL	Implement a split zone R20/R30 Scheme Amendment – Amendment to recode all existing R20 zoned land in South Hedland and Port Hedland to R20/R30. Amendment initiated.	N/A
PE6	ALL	Prepare an Integrated Strategic Planning & Reporting Framework – A Corporate Business Plan to provide for agreed levels of funding for Council sponsored initiatives, including: 10 year financial plan 4 year workforce plan incl. office accommodation and housing Asset Management Plan Information & Communications Technology Plan	\$1.5m
PE7	ALL	Marketing Plan -— Prepare a Strategy to articulate branding and marketing of Port Hedland	\$100,000
PE8	ALL	Tourism Strategy— Develop a strategy linking tourism marketing to Branding and the provision of tourism infrastructure	Approx \$150,000 (study)

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
COMMUNITIES AND CULTURE (CC	:)		
CC1	ALL	Non-Indigenous Heritage - Update of ToPH Municipal Inventory of Heritage Places.	Approx. \$50,000
CC2	ALL	Indigenous Heritage: - Area specific Indigenous surveys conducted on 'as required' basis to identify heritage sites. Any proposed impact on Indigenous sites requires an application under Section 18 (Aboriginal Heritage Act 1972).	Varying levels
ссз	ALL	Cultural Plan – Develop a Cultural vision that audits existing indigenous and non-indigenous culture and develops shared vision and cultural activation.	Approx. \$150k (Study
CC4	ALL	Public Arts Strategy - Develop a Public Arts Strategy including key themes, locations and procedures	TBC (by ToPH)
	Health Care		
	11	Regional Hospital (60 beds) A Regional level facility providing a broad range of medical services and specialities.	TBC (by Health Dept. and others)
CC5 (HEALTH CARE)	ALL	Community Health Centre (900sqm) Offering a core suite of local community health services to match the local population; may include integrated programs with GPs and indigenous medical services	TBC (by Health Dept. and others)
	ALL	Neighbourhood Community Health Centre (2,000sqm) Offering a core suite of community health services for the local population, including a range of primary and ambulatory programs and outpatient clinics, such as maternal and child health	TBC (by Health Dept. and others)
	ALL	District Community Health Centre (4,000sqm) – offering a similar range of services as the Neighbourhood Health Centre, but with an additional focus on private services eg. pharmacy, allied health, medical clinics	TBC (by Health Dept. and others).
	2; 10-13	Aged Care (3,200sqm) – offering multiple aged care services (both private and public)	TBC (by relevant providers)

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)	
	Law & Order / Emergency Services			
	ALL	Police Station	TBC (by WA Police and others)	
CC6	ALL	Fire Station	TBC (by FESA and others)	
(LAW & ORDER/ EMERGENCY SERVICES)	ALL	Ambulance	TBC (by St. John's Ambulance and others)	
	ALL	State SES Unit	TBC (by SES and others)	
	Education			
	ALL	Pre-School (450sqm)	TBC (by Education Dept. and others)	
CC7 EDUCATION	ALL	Primary School (3,000sqm)	TBC (by Education Dept. and others)	
	ALL	Secondary School (4,500sqm)	TBC (by Education Dept. and others)	
	1; 2; 10 & 11	Tertiary Centre of Education for Excellence (ie. Specialist Regional University Campus)	TBC (by Commonwealth, State, Government and private proponents)	
CC8	1; 2; 9-13	Active Open Space Strategy (AOSS) (refer items CC8A – CC8F below for key actions)	TBC (by ToPH)	
CC8A	2	Macgregor Street /Cooke Point Drive Master Plan	Approx. \$23m	

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
СС8В	10	Marie Marland Reserve Master Plan	Approx. \$9.5m
CC8C	12	Hedland Senior High School Events Space	Approx. \$4.5m
CC8D	10 & 12	Combined K-12 Campus and District Active Open Space	Approx. \$32m
CC8E	12	Collier Drive Developments	Approx. \$15m
CC8F	9	Golf and Equestrian Precinct Master Plan	Approx. \$21m (by ToPH)
сс9	1 & 11	Entertainment Facilities Study - Investigation of future entertainment options, including Performing Arts Centre and cinema complex. Draft report received in December 2012.	\$40m (Performing Arts Centre) TBC (by private sector for cinema complex)
CC10	ALL	Active Transport (Walking and Cycling) Plan – Port Hedland Cycle Plan and Walk-It Hedland	TBC (by ToPH)
CC11	ALL	Indigenous Reconciliation Action Plan – Prepare RAP	TBC (by ToPH)
CC12	ALL	Aboriginal Arts Centre – delivery of Arts Centre facility in line with Aboriginal Arts Development Strategy	TBC (by proponent)
CC13	11	Aboriginal Cultural Centre – delivery of Aboriginal Cultural Centre	TBC (by Wagka Maya)
CC14	5 & 8	Motorsports Facilities Master Plan Options to integrate all motor sport options within a single facility	TBC (by ToPH)
CC16	1; 2 & 11	Library Services – Relocation of Port Hedland Library	Approx. \$200,000 (study) Relocation costs unknown

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
CC17	1 & 2	Event Services and Passive Recreational Spaces – Develop dedicated event and passive recreational spaces in West End and Spoilbank (to be integrated and undertaken in conjunction with Coastal/Boardwalk Master Plan)	Approx. \$5m (for West End) Approx. \$5m (for Spoilbank)
CC18	1	Cultural Services – Investigate cultural centre for West End that could include Galleries, Office Space and Industrial Tourism/Historical displays	Approx. \$30m
CC19	1; 2; 9-13	Event Development Plan – High Profile Event, featuring international drawcard performer	Approx. \$1.5 - \$1.8m per annum
CC20	1 & 2	Coastal / Foreshore Redevelopment – Integrated Foreshore Master Plan for redevelopment Master Plan from West End to Pretty Pool (including bridge / boardwalk integration)(see also item CC17)	TBC (by ToPH)
CC21	2	Pretty Pool Reserve – Prepare Master Plan for redevelopment of Reserve / park including commercial facilities	TBC (by ToPH)
CC22	ALL	Caravan Park – Prepare overall Master Plan and Strategy to Identify variety of potential locations and models	TBC (by ToPH)
CC23	1; 2; 10 & 11	Backpackers Accommodation – Identify location, plan including delivery model	TBC (by ToPH)
CC24	2 & 11	Aquatic Facilities – consider future location, Master Plan in Port Hedland	\$15m
CC25	11	Library Services – Feasibility Study into library and community centre in South Hedland City Centre. Study to be completed in March 2012.	Approx. \$30m
CC26	11	Youth Services - Design and build youth space/skate park in South Hedland City Centre, in accordance with community engagement outcomes	Approx. \$3m
CC27	2	Redevelop Civic Centre – Design and build Civic Centre in South Hedland City Centre	Approx. \$40m
CC28	11	South Hedland Aquatic Centre (SHAC) – Master Plan for Aquatic Centre	\$10m
CC29	12	Cultural Services – Upgrade Matt Dann Cultural Centre (PART OF)	Approx \$300,000 for upgrade. Approx. \$1.5m for additions

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
HOUSING & LAND SUPPLY (HLS)		
HLS1	2; 10-13	Alternate Tenure Study and Demonstration Project—Practical study of alternate tenure arrangements for residential housing in ToPH. Include assessment of feasibility of joint tenure, development rental and rent-to-buy and deferred purchase/capital gains sharing arrangements. Implement optimal tenure approach through a demonstration development such as a potential JV arrangement.	Approx. \$100k (Study) Approx. \$10m for demonstration project
HLS2	2; 10-13	Dedicated Community Housing Organisation – Investigate and establish a dedicated community housing organisation vested with Crown land holdings.	TBC (by DoH)
HLS3	2; 10-13	Home-based Business Strategy and Packs – A comprehensive Home-based Business Strategy for ToPH that supports and facilitates home-based business establishment and growth. Includes development of information pack for newly formed home-based businesses.	Approx. \$250,000
HLS4	2; 10-13	Medium/High Density Product Business Case – Business case to demonstrate viability of medium and high density residential product, including consideration of construction approach and investment levels	Approx. \$50,000
HLS5	2; 10-13	Key Worker Housing Project – development project to provide key worker housing. Locate in South Hedland Town Centre. Deliver through JV arrangement on Crown land site.	Approx. \$10m
HLS6	2; 10-13	Affordable Housing Strategy – Prepare an Affordable Housing Strategy	-
HSL7	ALL	FIFO and Temporary Accommodation Strategy	-
HLS8	2	GP Housing (refer also item HLS17)	Stage 1 Approx. \$4.5 million

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
RESIDENTIAL LAND SUPPLY TARGE	ETS BY PRECINCT		
Precinct 1 – "West End"			
HLS9	Old Hospital site – Sutherland Street and Moore Street	Hotel and Residential Development – Development Application approved on landmark site in the Precinct comprising a hotel and residential complex	Approx. \$50m (Hotel) Approx. \$75m (residential)
HLS10	Parcel H (All Seasons Hotel)	All Seasons Hotel – identified as medium term landmark mixed use redevelopment opportunity. Master Planning / rezoning required – ToPH, DoP to facilitate redevelopment outcomes Coastal Vulnerability & Flatback Turtle Nesting considerations – DEC to facilitate appropriate redevelopment outcomes.	\$130m
Precinct 2 — "East End Urban Villa	ge"		
HSL11	Parcel I (ToPH Offices)	ToPH Offices – identified as long term landmark mixed use redevelopment opportunity. Master Planning / rezoning required – ToPH, DoP - to facilitate redevelopment outcomes Coastal Vulnerability & Flatback Turtle Nesting considerations – DEC to facilitate appropriate redevelopment outcomes Opportunity requires considered ToPH office relocation planning & feasibility assessment by ToPH	-
HSL12	Parcels J-T, UV, AE, AD, W-Z, AA, AB, AF-AJ (Port Hedland racetrack, WWTP & surrounds)	Land Collectively known as 'East End' Master Plan Area – land for the purposes of short/ongoing residential land supply. Identified as primary urban/residential area in Port Hedland Native Title clearances required Master Planning / rezoning required – ToPH, DoP - to facilitate redevelopment outcomes; Landownership fragmentation to be coordinated towards cohesive development staging/outcomes – DRDL/LandCorp/ToPH	-
HSL12 cont'd	Parcels J-T, UV, AE, AD, W-Z, AA, AB, AF-AJ (Port Hedland racetrack, WWTP & surrounds)	Mangrove, Coastal Vulnerability, Heritage & other considerations – DEC to facilitate appropriate redevelopment outcomes; WWTP relocation/remediation required includinremoval of existing buffer; Infrastructure service provision upgrades / trunk infrastructure to be in readiness for project staging; Geotechnical / Fill assessments required to inform final development feasibility / response to coastal vulnerability; Economic Development/Retail assessment required to inform detailed planning of 'East End Neighbourhood Centre' Built Form to reflect Port Hedland vernacular.	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
		Detailed site master plan approval required together with scheme amendment to remove WWTP buffer impact (or approvals negotiated);	
HLS13	Parcel AO	WWTP relocation/remediation required including removal of existing buffer – or substantial progression to negotiate approval – ToPH/ DoP/ WaterCorp to facilitate;	_
		Infrastructure service provision upgrades / trunk infrastructure to be in readiness for project staging;	
		Geotechnical / Fill assessments required to inform final development feasibility / response to coastal vulnerability;	
		Built Form outcomes to reflect development solutions / Port Hedland vernacular;	
		Cooke Point Caravan Park – Medium term mixed use / tourism /residential development opportunity. This landmark mixed use redevelopment opportunity requires:	
HLS14	Parcel AM (DRDL)	Assessment of Tourism service provision to be accommodated in new development / elsewhere in any feasibility. Currently Aspen run Caravan Park leased from DRDL	-
	(51152)	Master Planning / rezoning required – ToPH, DoP - to facilitate redevelopment outcomes	
		Coastal Vulnerability considerations – DoP to facilitate appropriate redevelopment outcomes	
	Parcel AL &AK (LandCorp)	Pretty Pool Project – remaining southern grouped dwelling site (AL) and 'northern beachfront' site (AK) of established Pretty Pool residential estate.	
111545		Site readiness for land release required (AL)	
HLS15		Site AK requires completion of environmental monitoring (flatback turtles, shorebirds etc) prior to seeking further development consideration by DEC.	-
		ToPH/DoP to facilitate AK rezoning / master plan adoption following negotiated DEC assessment outcomes.	
	D 146	Rock of Ages – medium term redevelopment opportunity.	
HLS16	Parcel AC	Site requires Master Planning and approvals	-
	(ToPH)	Coastal Vulnerability considerations – DoP to facilitate appropriate development outcomes	
HLS17	Parcel AN	GP Housing - Development Approval granted for residential units	-
Precinct 10 – "Western Edge"			
HLS18	Parcel A & B	Portion of Parcel A sold by Private Treaty to BHP for the purposes of a 430 dwelling unit Key Workers Accommodation Balance land to be developed for residential purposes in medium term	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
HLS19	Parcel C & D (Compass Group)	Land commonly known as 'Area A – Gateway Village' – awarded to Compass Group by DRDL for the purposes of delivering TWA accommodation. Development approval for 1333 beds Conversion to residential in the short term predicated on early removal of TWA ToPH to facilitate issue of final development approvals DRDL to monitor timely delivery of TWA on site. Compass to progress development program	
HLS20	Parcels F-H (Auzcorp)	Land commonly known 'Area B – Auzcorp' – awarded to Auzcorp by DRDL for the purposes of delivering permanent residential housing in proximity to the South Hedland Town Centre. Estimate of 400 bed future development Conversion to residential in the short term predicated on early removal of TWA DoP / ToPH to facilitate timely planning approvals under Master Plan for site. DRDL to monitor timely staged delivery of housing on site. Auzcorp to progress development program	-
HLS21	Parcels I-J & Parcel L (LandCorp)	Land commonly known as 'Site C' — being progressed by LandCorp as part of the "Western Edge" project, together with adjoining land for the purposes of immediate residential land supply. LandCorp to progress immediate due diligence, feasibility and master planning for land (rezoning & structure plan) ToPH, DEC & DoP to facilitate expedited approvals processes DoW to assist in site responsive development outcomes to address fill/flooding challenges Horizon Power, Water Corporation to address infrastructure capacity requirements to ensure delivery program is achieved	-
HLS22	Parcels M-Y & Parcel AB (LandCorp)	Land being progressed by LandCorp as "Western Edge" project – land for the purposes of immediate residential land supply. LandCorp to progress immediate due diligence, feasibility and master planning for land (rezoning & structure plan) ToPH, DEC & DoP to facilitate expedited approvals processes DoW to assist in site responsive development outcomes to address fill/flooding challenges Horizon Power, Water Corporation to address infrastructure capacity requirements to ensure delivery program is achieved	-
HLS23	Parcel Z & AA (DRDL)	Future Housing Supply Land - land for the purposes of medium/long term residential land supply. DRDL to progress native title clearance requirements across portion of parcel Z and all of parcel AA in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)	-
HLS24	Parcel AC	Future Housing Supply Land - land for the purposes of medium/long term residential land supply. Feasibility, Master planning and approvals required (rezoning & structure planning	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
'Precinct 11 –South Hedland City C	Centre		
HLS25	Parcel A (Humfrey Land Development)	Lot 21 – being developed by Humfrey Land Development following successful LandCorp tender process. Mixed use 2-3 storey development (including 19 commercial units) forecast to commence construction late 2011. LandCorp / ToPH to facilitate remaining site approvals & ready land for construction Humfrey to progress timely construction	-
HLS26	Parcel B (Pilbara Health)	Lot 22 – being developed by Pilbara Health for the purposes of mixed use residential accommodation and medical consulting suites. Pilbara Health to progress timely approvals and construction ToPH/LandCorp to facilitate site readiness and approvals	-
HLS27	Parcel C & D (LandCorp)	Lots 23-26 – current LandCorp tendered release for mixed use residential development as individual or combined development sites. LandCorp to progress timely conclusion of tender and facilitate immediate site planning and development by nominated developer	-
HLS28	Parcel E (Pilbara Health /LandCorp)	Lot 303 – existing Pilbara Health site planned for redevelopment for landmark mixed use City Centre project. Pilbara Health / LandCorp to facilitate urgent land transactions to enable land readiness for marketing and development	-
HLS29	Parcel F LandCorp	ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	-
HLS30	Parcel G (ToPH/ Shopping Centre)	Potential development Site – limited development site envisaged from land rationalisation adjoining new 'main street'. ToPH to facilitate land transactions to enable land readiness for marketing and development	-
HLS31	Parcel H-J (LandCorp)	Lots 301/302: Rason Court Mixed Use Development Sites – 3 planned development sites to accommodate immediate high density mixed use development. LandCorp to facilitate land transactions to enable land readiness for marketing and development	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
HLS32	Parcel K (LandCorp)	Lots 309/310: Landmark development site (cnr Throssell & Hamilton) - planned for major landmark development site ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	-
HLS33	Parcel M (Police)	Lots 301 & 6106 cnr Throssell & Hamilton – planned land release for 'town centre' zone uses	-
HLS34	Parcels N & O (LandCorp)	Cnr Forrest Circle and Murdoch Drive – planned land release ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	-
HLS35	Parcel P (LandCorp)	End of Rason Court -ToPH / LandCorp to facilitate land transactions to enable land readiness for marketing and development	-
'Precinct 12 –South Hedland East'			
HLS36	Parcels A & B (Cedar Woods)	Parker Street- land being progressed for immediate residential housing supply by Cedar Woods as successful development party to DRDL tender. DRDL to facilitate timely land transaction arrangements for development readiness ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program Cedar Woods to progress timely development	-
HLS37	Parcel C	Paton Road – land being progressed for immediate development by Developer ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program	-
HLS38	Parcel D (DoH)	College Court - land being progressed for short term development by DoH Negotiations under way for DoH to secure site from Department of Training	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
HLS39	Parcel E (Foundation Housing)	Lawson Street – land to be progressed for immediate residential affordable housing project. DRDL to facilitate timely land transaction arrangements for development readiness. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program.	-
HLS40	Parcel F (KMD Joint Venture)	Land commonly known as Site K – being progressed for subdivision and development by KMD Joint Venture – for short term housing. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program	-
HLS41	Parcels H-K (Jaxon)	Former Koombana School site - land being progressed for immediate residential housing supply by Jaxon as successful development party to DRDL tender. DRDL to facilitate timely land transaction arrangements for development readiness ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program Jaxon to progress timely development	-
HLS42	Parcel L (DoH)	Masters Way - land being progressed for immediate residential housing supply by DoH ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program	-
HLS43	Parcels M, N, S-V & W (DoH)	Cottier Drive (Zoned Land) - land zoned for immediate/short term residential subdivision and development. Master planning commenced under direction of Department of Housing, including 15ha site allocated for Key Worker accommodation. DoH to progress feasibility and structure plan ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress timely staged development	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
HLS44	Parcel O-R, T & X-Z (DoH)	Cottier Drive (Rural Land) - land requiring rezoning for short-medium residential subdivision and development. Master planning commenced under direction of DoH. Land affected by buffer to ToPH landfill site to immediate east of North Circular Road (landfill relocation required). DoH to progress feasibility, rezoning and structure plan ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress timely staged development	-
HLS45	Parcels AA & AB (DoH)	Trumpet Way –'Trumpet' Development being progressed under direction of DoH. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress timely staged development	-
HLS46	Parcel AC (DoH)	Cottier Drive - being progressed under direction of DoH. ToPH/DoP to facilitate timely approvals to allow immediate land subdivision and development Infrastructure agencies to facilitate service capacity in line with required development program DoH to progress staged development	-
'Precinct 13 – Eastern Gateway'			
HLS47	Parcel A & B (DRDL)	Eastern Gateway Future Housing – land for the purposes of medium/long term residential land supply. DRDL to progress parcel areas in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)	-
HLS48	Parcels C, D & G (DRDL)	Eastern Gateway Future Housing – land for the purposes of medium/long term residential land supply. DRDL to progress parcel areas in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)	-
HLS49	Parcels E & F (DRDL)	Eastern Gateway Future Housing – land for the purposes of medium/long term residential land supply. DRDL to progress land transactions in readiness for future planning & development Feasibility, Master planning and approvals required (rezoning & structure plan)	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
TEMPORARY WORKER'S ACCOMM	ODATION (PROPOSED)		
HLS50	6	The Landing Development approval in 2011 for 282 beds. Estimated 736 beds in future stage	-
HLS51	7	Compass Port Haven Development approval pending in 2011 for 608 beds	-
HLS52	10	Auzcorp Mia Mia Development approval in 2011 for 63 beds	-
HLS53	12	Mineral Resources Airport Camp Estimated 500 bed facility in future development	-
HLS54	10	FMG Club Hamilton Development approval in 2011 for 444 beds.	-
HLS55	10	Gateway Village (Area A) Development approval in 2011 for 1333 beds	-
HLS56	7	BHPIO – Airport Precinct Business Plan Approval in 2012 for 4,000 beds	-

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
ENVIRONMENT & CHANGE ADAPT	TATION (ECA)		
ECA1	ALL	Terrestrial Fauna Studies – To assess potential impact upon terrestrial fauna.	Approx. \$20,000 per investigation
ECA2	ALL	Terrestrial Flora and Vegetation Studies – To assess potential impact upon terrestrial flora and vegetation.	Approx. \$80,000 per Level 2 Flora and Vegetation Investigation
ECA3	ALL	Water Management Strategies (DWMS/LWMS) - Required when undertaking scheme amendments for highly constrained precincts and for managing storm surge/flooding events	Approx. \$25,000 per strategy
ECA4	ALL	Urban Water Management Plans – To be prepared as part of subdivision proposals	Approx. \$20,000 per plan
ECA5	ALL	Marine Fauna Studies – To assess potential impact upon marine fauna. To be undertaken as required	Approx. \$15,000 per assessment
ECA6	ALL	Light Spill Studies - Identifying management strategies to avoid or minimise any potential impacts to the marine turtle habitat on Cemetery and Pretty Pool Beaches Studies have been commissioned by LandCorp for parts of East End.	Approx. \$15,000 per assessment

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
INFRASTRUCTURE CAPACITY (IC)			
IC1	ALL	Fill Strategy – Strategy completed; commence engagement with Private Sector to identify alternative fill opportunities eg. mine site overburden; new fill extraction opportunities	TBC (by LandCorp)
IC2	ALL	Public Transport Strategy Tourist bus – 'hop-on hop-off'- subsidy for operation to be considered	Approx. \$100,000
IC3	ALL	Traffic Forecasting and Planning Study - Develop a traffic model and undertake traffic study for the ToPH (on-going on a Precinct by Precinct basis)	Approx. \$200,000
IC4	ALL	Water and Wastewater Supply Strategy – Supply Strategy completed	TBC (by Water Corp)
IC5	ALL	Expansion of Yule and DeGrey River borefields and associated infrastructure	Approx. \$90m
IC6	ALL	Investigation and establishment of West Canning Basin borefield	TBC (by Water Corp)
IC7	ALL	Upgrade distribution infrastructure (trunk mains/water tanks/water tower) to meet demands for 2016	Approx. \$110m
IC8	ALL	Upgrade distribution infrastructure (trunk mains/water tanks/water tower) to meet demands for 2026 – Planning Study completed	Approx. \$110m
IC9	2; 9	Decommissioning of Port Hedland WWTP and upgrading of South Hedland WWTP including associated infrastructure and remediation Parallel staging of Delivery Plan	Approx. \$106m
IC10	7	Upgrade and redevelopment of the Airport	Approx. \$80m
IC11	ALL	Power and Gas Supply Strategy – Discussions with Horizon Power and Gas Authority on planning, supply and easement requirements	TBC (by Horizon Power)

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
IC12	3; 5-8; 15 & 16	Industry Gas Supply - Gas to be provided on a user requirement basis to industrial applications of sufficient size	-
IC13	ALL	Communications - Ensure NBN Co. is advised of all new and infill developments across Port Hedland	-
IC14	ALL	Interim Infrastructure - Consider interim infrastructure solutions to enable development to proceed such as integrated prepackaged water and wastewater treatment facilities, temporary water bores, gas bottles and solar for energy.	TBC (by Water Corp)
IC15	ALL	Use of TWA/Short Stay treated water for non-potable purposes (e.g. dust control, construction water)	Approx. \$300,000 per facility
IC16	ALL	Freight Transport Strategy – Monitor and augment existing plans as required Interface with air freight/road/port supply chains	Approx. \$200,000 (for Strategy)
IC17	10	ToPH Landfill Site – Feasibility/Technical Study required to consider options for relocation (to Newman Turn- off)	Approx. \$500k (Feasibility Study) Approx. \$50m (post closure works and new facility)
IC18	10-13	South Hedland Underground Power Project	\$45k (for Study) Implementation Costs (by Horizon Power)
IC19	ALL	Interim Infrastructure - Consider interim infrastructure solutions to enable development to proceed such as integrated prepackaged water and wastewater treatment facilities, temporary water bores, gas bottles and solar for energy.	TBC (by Water Corp)
IC20	2	Civic Centre Upgrade – undertake upgrade of existing Civic centre to accommodate an additional 100 staff (approx.)	Approx. \$10m
IC21	10-13	South Hedland Detention Basin Strategy	TBC (by ToPH)

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)		
INFRASTRUCTURE IMPLEMENTATION	FRASTRUCTURE IMPLEMENTATION ACTIONS BY PRECINCT				
IC22	1	Wastewater Infrastructure – Upgrade of wastewater reticulation to precinct currently underway (March 2013 proposed completion date)	Approx. \$8m		
IC23	15	Water Infrastructure – Plan, design and construct water trunk main from South Hedland to Boodarie to enable supply in line with growth objectives.	Approx. \$250m		
IC24	1	Power - Commence preliminary planning and design for electricity supply from new substation for Precincts 1 & 2. Consideration to be given to shared trench arrangements with gas / communications.	Approx. \$75m		
IC25	3	Power- Plan, design and construct infrastructure to enable supply in line with growth objectives. Peak power requirements forecasted. Investigations and studies by Horizon Power &/or others will be required.	TBC (by Horizon Power)		
IC26	4	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives.	TBC (by Horizon Power)		
IC27	5	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives.	TBC (by Horizon Power)		
IC28	6	Power – Upgrade existing Wedgefield Zone Substation. Horizon Power to install 3rd transformer in Wedgefield zone substation.	TBC (by Horizon Power)		
IC29	7	Power – Plan, design and construct new zone substation for precinct. New zone substation urgently required.	Approx. \$75m		
IC30	9	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives.	TBC (by Horizon Power)		
IC31	10	Power - Commence preliminary planning and design for electricity supply from new substation. Consideration to be given to shared trench arrangements with gas / communications. New zone substation urgently required.	Approx. \$75m		

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
IC32	11	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives. In conjunction with Precinct 7 & 10. New zone substation required urgently	TBC (by Horizon Power)
IC33	12	Power – Commence preliminary planning and design for electricity supply from new substation. Consideration to be given to shared trench arrangements with gas / communications. Power to be utilised from nearby Murdoch Z/S & new Z/S installed.	TBC (by Horizon Power)
IC34	13	Power – Plan, design and construct infrastructure to enable supply in line with growth objectives.	Approx. \$75m
IC35	14	Power – Plan, design and construct infrastructure to enable supply in line with growth objectives.	TBC (by Horizon Power)
IC36	15	Power— Plan, design and construct infrastructure to enable supply in line with growth objectives. Peak power requirements forecasted. Investigations & studies by Horizon Power &/or other parties will be required	TBC (by Horizon Power)
IC37	9 & 10	Drainage – The existing outfall from South Hedland to South Creek may potentially be used as a non-potable supply that will ease pressure on the existing potable system. This outfall should be investigated as part of a broader integrated water strategy.	TBC (by Water Corp)
IC38	16	Remote Community Infrastructure – Plan an infrastructure strategy for remote communities (eg. Yandiyarra) including roads, water, sewerage, utilities and associated services. This should consider alternative infrastructure solutions (i.e. gas bottles for cooking, solar for heating, satellite communications, pre=packaged water / wastewater treatment etc.).	TBC (by ToPH)
IC39	16	Coastal Access opportunities	-
IC40	1	Multi-Storey Carpark – construction of multi-storey carpark in the West End to accommodate future growth	TBC (by ToPH)
IC41	11	Mulit-Storey Carpark construction of multi-storey carpark in South Hedland CBD to accommodate future growth	TBC (by Landcorp)

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
ROADS			
IC42	1	Anderson Street -Upgrading to two lanes in each direction (throughout Precinct 1 and 2).	Approx. \$20m
IC43	1 -5	Wilson Street/Port Access Road -Upgrading to two lanes in each direction	Approx. \$17m
IC44	2	Athol / McGregor Street- Upgrading to two lanes in each direction.	Approx. \$12.5m
IC45	2	Cooke Point Drive - Upgrading to two lanes in each direction.	Approx. \$6m
IC46	6 & 7	Great Northern Highway - New proposed links onto the realigned and existing Great Northern Highway (acceleration and deceleration lanes in Precincts 6 and 7)	Approx. \$7.0m
IC47	6	Wedgefield Estate - New access roads	Approx. \$7.5m
IC48	7	New Airport roads designed to heavy vehicle standard (Precinct 7)	Approx. \$16m
IC49	3-5	Redbank (Bridge) Duplication	Approx. \$90m
IC50	8	Pippingarra Road - Upgrade to a sealed road	\$ 4.5m plus \$0.4m professional fees
IC51	9 & 10	Shoata Road - Upgrade to a sealed road	\$ 2.8m plus \$0.3m professional fees

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
IC52	9-11	Great Northern Highway to Forrest Circle – new connection	\$ 8.5m plus \$0.8m professional fees
IC53	10 & 11	North Circular Road - dual lanes between Hamilton and Wallwork Roads and extension around the west of South Hedland	\$ 11.0m plus \$1.1m professional fees
IC54	12	Masters Way - extension	\$ 1.5m plus \$0.15m professional fees
IC55	10	Hamilton Road - upgrading to two lanes in each direction	\$7.6m Plus \$0.3m professional fees
IC56	12	Hamilton Road - dualing between Somerset and South Hedland High School upgrading to two lanes per direction by 2026.	\$ 2.8m plus \$0.8m professional fees
IC57	11	Forrest Circle - upgrading to two lanes in each direction	\$ 4.3m plus \$0.4m professional fees
IC58	12	Murdoch Drive - upgrading to two lanes in each direction	\$ 2.8m plus \$0.3m professional fees
IC59	10 & 12	Wallwork Road & Bridge - upgrading to two lanes in each direction	\$33m plus \$0.3M professional fees
IC60	12	Osprey Drive - extension	\$ 11.4m plus \$1.1m professional fees
IC61	9	Quartz Quarry Road - Upgrade to a sealed road (access route)	\$ 6.3m plus \$0.6m professional fees

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
FOOTPATHS AND CYCLEWAYS			
IC62	1	Sutherland Street - Off road coastal shared path	Approx. \$1.2m
IC63	1	Anderson Street -Off road or segregated cycle facilities	Approx. \$2.75m
IC64	2	Athol Street - Off road or segregated cycle facilitie	Approx. \$1.5m
IC65	2	Pedestrian Bridge linking Cooke Point - Pretty Pool	Approx. \$5m
IC66	1	Wedge Street - cycle lanes	Approx. \$400,000
IC67	1	Edgar Street - cycle lanes	Approx. \$200,000
IC68	1	McKay Street - cycle lanes along	Approx. \$450,000

GROWTH PLAN THEME	GROWTH PLAN PRECINCT	KEY IMPLEMENTATION ISSUES / ACTIONS	INDICATIVE COSTS WHERE KNOWN (\$)
IC69	1	Acton Street - cycle lanes	Approx. \$200,000
IC70	1	Howe Street – cycle lanes	Approx. \$250,000
IC71	9-11	Great Northern Highway to Forrest Circle) - off-road or segregated cycle facilities along the new road (connecting to the community and open space facilities	\$ 2.1m plus \$0.2m professional fees
IC72	10	Off road or segregated cycle facilities along all local distributor roads	\$ 2.8m plus \$0.3m professional fees
IC73	11	Off road or segregated cycle facilities along all local distributor roads	\$ 1.7m plus \$0.2m professional fees
IC74	12	North Circular, Murdoch, Collier Drive — off road segregated cycle facilities along all local distributor roads	\$ 10.4m plus \$1.0m professional fees
IC75	13	Murdoch Drive extension - off road or segregated cycle facilities along	\$ 1.4m plus \$0.15m professional fees
IC76	13	Osprey Drive - cycle lanes	\$ 2.8m plus \$0.3m professional fees





ALL ENQUIRIES TO:

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