Investigation into the potential for a State Development Area around the Port of Bundaberg

Information report – June 2016
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In October 2015, the Queensland Government announced an investigation into the possibility of establishing a State development area (SDA) around the Port of Bundaberg.

Following the announcement, a technical analysis has been undertaken to determine the suitability of land around the Port to support industrial development. The technical analysis has included consideration of economic development opportunities, physical and environmental constraints, environmental and community impacts and infrastructure requirements.

The Port of Bundaberg is expected to play a significant role as a catalyst for the future growth of the Wide Bay Burnett region. The potential declaration of an SDA would provide a location for regionally significant economic activities and preserve strategic land for the long term to prevent encroachment from incompatible uses. In addition to exploring new trade opportunities, the proposed Bundaberg SDA could open the way for significant investment and job opportunities for the region.

The outcomes of the investigation have informed a boundary for the proposed Bundaberg SDA. Community feedback is now being sought to assist the Queensland Government to make a decision on whether an SDA should be declared around the Port of Bundaberg, and if so, the location of the SDA boundary.
Background

An SDA around the Port of Bundaberg could help to facilitate economic growth and employment opportunities in the Bundaberg and Wide Bay Burnett regions.

It may also provide for other development and growth that could capitalise on spare port capacity and land around the Port of Bundaberg. An SDA would allow the Coordinator-General to plan for long-term development as well as providing opportunities in the short to medium term.

The investigation around the Port of Bundaberg has focussed on the suitability of the area to support industrial development, and has considered industry opportunities, infrastructure and transport requirements, land use, and physical, environmental and social impacts.

The investigation area

The area investigated by the Coordinator-General for a potential new SDA is located north of Bundaberg city. The investigation area is shown on the below map and includes:

- land on the eastern side of the Burnett River, including the current Port of Bundaberg and surrounding port-related and industrial uses.
land on the western side of the Burnett River, predominantly used for sugar cane cultivation and rural landholdings.

The investigation also considered surrounding areas.

The Port of Bundaberg is located 19km downstream of Bundaberg city, approximately 5km from the mouth of the Burnett River. It is serviced by two main wharves:

- the Sir Thomas Hiley Wharf, which handles bulk sugar exports
- the John T. Fisher Wharf, which handles molasses exports.

Other land uses within the eastern side of the investigation area include the Bundaberg Port Marina and adjacent marine industry areas, port dredge disposal/wetland areas and some vacant port land. Outside of the investigation area, a small residential township exists immediately south of the current port operations and to the east are smaller rural landholdings and the residential community of Burnett Heads.

The majority of the western side of the investigation area is currently used for irrigated and unirrigated sugar cane cultivation. Other land uses include some smaller rural landholdings along the Burnett River. Outside the investigation area, to the north are coastal areas while to the south and west are rural landholdings and the residential townships of Tantitha and Gooburrum.

The role of the Coordinator-General

Queensland’s Coordinator-General is responsible for the planning, establishment and ongoing management of SDAs throughout Queensland.

- An SDA is an area of land declared under the State Development and Public Works Organisation Act 1971 for industry, infrastructure corridors and major public works.
- SDAs are established to:
  - promote economic development in Queensland
  - provide guidance and development certainty to industry
  - control development in a way that considers existing industry, surrounding development and environmental values.
- There are currently nine SDAs throughout Queensland that have been established to facilitate large scale industrial development, such as the Gladstone and Abbot Point SDAs; rail, such as Galilee Basin SDA; and other linear infrastructure, such as the Callide Infrastructure Corridor SDA and the Stanwell to Gladstone Infrastructure Corridor SDA.
Methodology

To determine the suitability of the investigation area for an SDA, a number of technical analyses were carried out.

- An economic analysis to identify potential future trades through the Port of Bundaberg and industry sectors that could be attracted to the area.
- An assessment to identify constraints and opportunities and the potential suitability of the study area to accommodate the identified industries. The assessment considered:
  - environmental, social and cultural issues including areas of particular significance to be protected and potential implications for development
  - existing flood conditions and any potential impacts of development and infrastructure.
- An assessment of the suitability of infrastructure networks in the region to cater for potential development.
Economic factors

Regional overview
The Wide Bay Burnett region has a diverse economy with major clusters of employment in health care and social assistance, and retail trade and manufacturing. The Bundaberg region has high levels of employment in health care and social assistance, retail trade, agriculture, forestry, fishing, and manufacturing. The Bundaberg region and the broader Wide Bay Burnett region are expected to experience population growth rates that are lower than the Queensland average.

While the Bundaberg region is currently an agricultural centre, its further growth as a major regional servicing centre will be assisted by the potential development of mineral deposits within the Wide Bay Burnett region and export opportunities through the Port of Bundaberg. However, current port handling and transport infrastructure may need expansion to support port trade growth. Key challenges to development in the Wide Bay Burnett region include transport costs and accessibility.

Future port trade and industry sectors
It is difficult to predict future port trade volumes for a relatively small, single commodity port like the Port of Bundaberg. Although current trades are predominately sugar-related, the commencement of the Knauf plasterboard plant will generate demand for gypsum imports. Trial shipments of silica sands and wood pellets have also recently been undertaken.

Independent modelling for the Port of Bundaberg anticipates port volumes could increase from a base of approximately 0.5 million tonnes per annum to over 1 million tonnes per annum in the medium term and potentially much higher in the long term if bulk commodities prove viable.

In addition to enhanced port trade volumes, opportunities exist to build on and diversify the industry base within the Bundaberg region. A range of industry sectors have been identified that may benefit from locating in the Bundaberg region, including:

- support services for the agricultural and mining industries
- machinery and equipment manufacturing
- specialised manufacturing, including polymers, basic chemicals and oils
- metal product manufacturing and fabrication.

A range of other long-term potential regional development opportunities also exist, including those related to biofuels, those that utilise the new gas pipeline (currently under construction), and the marine industry. The declaration of an SDA would preserve strategic land in the long term to prevent incompatible land use and provide a location for regionally-significant economic activities that might not be suitably located elsewhere.

Current development around the Port of Bundaberg

Knauf plasterboard plant
Knauf is currently constructing a plasterboard plant on an 8.5 hectare site at the Port of Bundaberg. Knauf located to the Port of Bundaberg for a range of reasons, including direct port access, land costs, access to gas, and workforce availability. The plant will rely on importing approximately 120,000 tonnes per annum of gypsum to manufacture plasterboard. Synergies have been identified between the plant and the region’s agricultural base, which includes an opportunity to import gypsum as a soil conditioner for agricultural use.

Bundaberg Port gas pipeline
A gas pipeline is currently under construction to the Port which will support the development of the Knauf plasterboard plant. The pipeline has capacity to transmit more gas than is required for day-to-day operation of the plant. Development of the gas pipeline will provide opportunities for further industrial development around the Port.
Environment
A review of environmental values within and adjacent to the investigation area identified the following potential features:

▸ several areas of subtropical and temperate coastal saltmarsh, listed as vulnerable under the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

▸ potential habitat areas for several EPBC Act listed threatened species including sea turtles, water mouse, shorebirds and possibly koalas

▸ potential habitat for the Wallum froglet, listed as vulnerable under the *Nature Conservation Act 1992*

▸ areas of State-significant regional ecosystems, wetlands, remnant vegetation and marine plants.

While some discrete areas of ecological significance were identified throughout the study area, the most significant and undisturbed areas of flora and fauna habitat were identified:

▸ along the coast in the western part of the study area (due largely to its undeveloped and secluded nature)

▸ within the port dredge spoil/wetland (which has evolved over time to create a regionally-significant fauna habitat).

**Environment, social and cultural heritage**

**Environment**

Kaili (Caley) Valley Wetlands

The Kaili (Caley) Valley Wetlands are a nationally important wetland system listed under the Directory of Important Wetlands in Australia. The wetlands are partially located within the boundary of the Abbot Point SDA and adjoin the Port of Abbot Point. The wetlands cover an area of approximately 5,154ha and represent one of the largest intact wetland systems between Townsville and Bowen.

The Coordinator-General works with the local port, Traditional Owners and other stakeholders to ensure the wetlands are managed in an environmentally appropriate manner. Achievements include:

▸ the introduction of stringent development assessment criteria in the Abbot Point SDA Development Scheme

▸ land management, including rehabilitation activities such as removing pest weeds, pest animals and refuse

▸ introduction of fire management and erosion management strategies.

There is the potential for sea turtle nesting near the investigation area. If development is proposed in coastal areas, further investigations would be required. Future increases in port usage will be carefully managed to ensure the protection of this significant species.

**Social**
A review of social values within and adjacent to the investigation area identified the following important features:
- residential areas around the existing Port (Port township and Burnett Heads)
- residential areas around the western side (including Gooburrum, Tantitha and houses along the Burnett River)
- Skyringville
- access to the river, coastal areas and boat ramps.

Should development in the area occur these values will be considered.

**Cultural heritage**
While there are no known built heritage places within the investigation area, it is likely that there may be Aboriginal cultural heritage sites within and adjacent to it. Records indicate that an Aboriginal burial site and fish trap are likely to be present, and there potentially could be shell middens and other significant sites throughout the coastal areas.

Given the area’s history and the largely undeveloped western side, there potentially could be unregistered cultural heritage or South Sea Islander sites. Should development of the area occur in the future, site-specific investigations may be required. All development would be required to comply with the *Aboriginal Cultural Heritage Act 2003*. 
Significant flood modelling has been undertaken in the Bundaberg region.

The investigation has considered detailed information on the Burnett River catchment, including:

- modelling for a range of potential flood events
- flood depth information
- areas at risk of isolation during flood events
- length of time of inundation during flood events
- information on the flow of water during flood events.

The modelling for the Burnett River is considered to be reliable and has been calibrated against historical flood events, including those in 1942, 1971, 2010, 2011 and January 2013. Storm tide modelling has also been undertaken for the Bundaberg region in 2010. Further information on flood modelling undertaken in the region, including detailed lot specific mapping, is available from Bundaberg Regional Council’s website (www.bundaberg.qld.gov.au).

During a significant flood event, flooding issues are evident across the investigation area with the main impact occurring on the western side of the Burnett River. The modelling indicates that during a significant flood event the central part of this area would likely be impacted by relatively deep and fast moving water. The higher land to the north and south is not expected to be inundated during these events.

Flood issues identified in the eastern part of the investigation area are, by comparison, generally minor and localised in nature. Areas inundated during a significant flood event are located along the river bank and in the lower-lying areas inland from the current port terminal.

Major flood events in the Burnett River catchment have the potential to cause significant risk to residents, buildings and infrastructure. In the western side of the investigation area, maintaining flood flows is critical to ensure the movement and flow of flood waters is not affected elsewhere. Areas of land exist in the western side of the investigation area which are largely unaffected by flood events and may have development potential. Development in the eastern side of the investigation area is less constrained by the impacts of flooding. Areas of inundation on the eastern side are generally low-lying swamp and wetlands which can be managed with no impacts to other properties.
Infrastructure

The extent of infrastructure required to support the proposed Bundaberg SDA would be dependent on a number of factors, including the location of development precincts, the type and scale of targeted industries, the nature and volume of commodities through the Port, and the capacity of surrounding regional infrastructure networks.

Transport
Port land on the eastern side of the Burnett River is currently serviced by a B-double capable road network, providing connections to the Bundaberg Ring Road and the Isis Highway. However, with increased port trade volumes and a continued reliance on road transport to the Port, a number of limitations in the current network have been identified, including the Powers Street access through the Port township area. Given the largely rural nature of the western side of the study area, significant pioneering transport infrastructure is likely to be required to support future development, including a flood-free road access.

Currently, the investigation area does not have a direct connection to the North Coast Rail Line and constraints have been identified should this connection be required in the future. These constraints require further investigation.

Port handling infrastructure
The existing port infrastructure located on the eastern side of the Burnett River is purpose built to support the export of bulk sugar and handling of bulk liquids. Additional port infrastructure to support the new plasterboard manufacturing plant is currently under consideration. As port handling infrastructure is usually specific to the industry it serves, it is likely that any major new commodity trade located on the eastern side of the river will require port infrastructure development. Further investigations will be required to determine the feasibility of port trade from the western side of the river.

Water supply
Port land in the eastern part of the study area is currently serviced by the Bundaberg Regional Council reticulated water supply network. The western side does not have a reticulated potable water supply and the closest connection is to the south, near the residential township of Tantitha.
A potential raw water supply exists in the western side of the investigation area from the Bundaberg Water Supply Scheme. The scheme currently provides water for agricultural uses, however the spare capacity in this network may provide a lower cost supply for industrial development where potable water quality is not required. Non-potable water could also be provided to the eastern side of the study area via a connection to the Woongarra system.

**Wastewater and stormwater systems**

The eastern side of the investigation area is currently serviced by Bundaberg Regional Council’s reticulated sewerage network, with significant additional capacity available once the construction of the Rubyanna wastewater treatment plant has been completed. The western side is not connected to a reticulated waste water network. Should large scale industrial development be proposed, a connection across the Burnett River to Rubyanna is likely to be required.

Stormwater quantity and quality systems exist for current industrial development in the eastern part of the investigation area. No major issues have been identified in managing stormwater for future development in the investigation area.

**Power and gas supply**

The investigation area is serviced by the Ergon electricity supply network. Existing and committed development is likely to place the supply network in the eastern side of the investigation area at capacity, with an upgrade to 66 kV likely to be required for any additional loading. The network on the western side currently has some capacity following the closure of the Fairymead Mill. No major issues have been identified in providing additional capacity in the investigation area.

The construction of the high pressure Bundaberg Gas Pipeline to Port land in the eastern side of the investigation area provides industrial gas capability for future development. The feasibility of connecting the western side of the study area to gas reticulation requires further investigation.
The findings from the investigation have been used to identify a proposed SDA boundary and concepts for how the area may develop in the short, medium, and long term. The actual timing of any industrial and infrastructure development will be subject to demand from industry sectors.

**Current strategic port land**

In the short to medium term, the majority of industrial development is likely to occur on the eastern side of the investigation area, adjacent to the current port facilities. The Port land on the eastern side of the Burnett River is well serviced by infrastructure networks and is likely to be able to cater for port commodity stockpiling and port-related industry demand for the short term. Suitable vacant land exists in this area, although increasing encroachment from urban development has lessened the location’s attractiveness for major industrial development. Further investigations will be required in the medium to long term to identify suitable land and infrastructure connections for future port-trade related development.

Other strategic port land also exists within the investigation area, including the dredge ponds/wetland area, unused land to the south of the Port township area and a small parcel on the western side of the Burnett River. Each of these areas represent particular challenges to port development from environmental, flooding, and urban encroachment perspectives and will require further investigation to determine development potential.

**Future industry investigation**

Through the investigation, a large amount of land has been identified on the western side of the river as potentially being suitable for major industrial development. The land identified is outside of high risk flood areas and, if developed, would not impact flood flows outside the site. The land identified is also well removed from environmentally sensitive areas.

Further detailed investigations will be required to confirm transport connections to the western side, although the area’s proximity to the North Coast Rail Line has been identified as an opportunity. Other infrastructure connections, while currently limited due to the location’s rural nature, are not expected to be a major constraint to development. Industries likely to be attracted to this location include those requiring large footprint sites well removed from urban residential areas. Few sites with these characteristics occur elsewhere in the Bundaberg and broader Wide Bay Burnett regions.
Transition

Transport connections into the current Port areas have been noted as a constraint to the ongoing growth and development of the Port of Bundaberg. Of particular concern is the residential growth along the Powers Street corridor and the potential for conflicts with port-related vehicle movements and the residential Port township area. While it is envisaged that some infill development will occur on vacant land within the township, further residential growth is restricted by the current Bundaberg Regional Council planning scheme.

Further investigations will be required to determine a suitable transport solution for the Port’s long-term growth. However, the current investigation has identified the opportunity to create a ‘transition’ area of light port-related industrial activities which are compatible with nearby residences and provide a buffer to a potential alternative transport corridor.
Non-industrial uses in an SDA

The 15,000ha Bromelton SDA is situated about 6km west of the Beaudesert township. It was declared in 2008 for South East Queensland’s long-term industry needs. The Bromelton SDA has long-standing industries including quarries, the Gelita gelatine factory and the AJ Bush and Son’s Rendering Plant. However, it can also accommodate new industries such as a new intermodal freight terminal which is proposed to be operational by early 2017.

1,800ha are identified in the Bromelton SDA for industrial development. It also accommodates other existing land uses such as rural properties, commercial activities, tourism-related uses and productive agricultural areas. The Coordinator-General recognises that these rural and agricultural activities provide a valuable contribution to the regional economy and, as the area develops for industrial purposes, a potential buffer to the industrial uses.

Buffer / agricultural

The continued productive use of the western part of the investigation area for sugar cane cultivation will be encouraged. Industry may comfortably coexist with agriculture and provide a suitable buffer to more sensitive uses. Should industrial or port-related development be proposed on the western side in the future, key considerations will include the protection of areas external to the site from increased flood risk and the protection of potentially significant environmental and cultural heritage values. The Coordinator-General is well placed to manage development in this area and provide increased certainty to the wider community for its future usage.

Environmental management

The investigation has identified a number of potentially significant environmental and cultural heritage areas along the northern coastal areas on the western side of the Burnett River. Of particular significance are the flora and fauna habitat amongst the coastal dunes, as well as Barrubra Island and Skyringville. Careful management of these areas is necessary to ensure their ongoing protection and contribution to the region’s natural ecosystems. The Coordinator-General is well placed to manage development pressures on sensitive environmental and culturally significant areas and has extensive experience in preparing and implementing land management programs.
Have your say

The Coordinator-General is seeking feedback on the proposed Bundaberg SDA, including its boundary *(as shown on page 16).*

You can make a submission using one of the following methods:

▸ complete the online submission form at https://haveyoursay.dsd.qld.gov.au/coordinatortgeneral/proposed-bundaberg-sda

▸ email your submission to sdainfo@coordinatortgeneral.qld.gov.au

▸ post your submission to:
  State Development Areas Division
  The Coordinator-General
  PO Box 15517, City East QLD 4002

Submissions should:

▸ be made to the Coordinator-General in writing or electronically

▸ be received before the end of the consultation period

▸ be signed by each person who made the submission

▸ include the name and address of each person who made the submission

▸ state the grounds of the submission and the facts and circumstances relied upon.

Feedback is invited until Monday, 25 July 2016.

Development scheme

The Queensland Government is currently only investigating the suitability of the area for the establishment of an SDA. Should a Bundaberg SDA be declared, then a draft development scheme will be prepared for consultation.

A development scheme is a planning instrument specific to an SDA. It is used by the Coordinator-General to assess and decide SDA applications for development.

SDA development schemes function in a similar manner to a local government planning scheme, by outlining the types of development which are regulated and the criteria which development is assessed against.

Further information on development schemes and SDA applications and requests is available on the Department’s website at www.statedevelopment.qld.gov.au/SDA.
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The June 2016 Digital Cadastral Database was utilised to produce this map.

Note

(i) The Coordinator-General accepts no responsibility for any loss or damage suffered however so arising to any person or corporation who may use or rely on this plan in contravention of the terms of this clause or clauses (ii) & (iii)

(ii) The dimensions, areas, number of lots, size and location of corridor information are approximate only and may vary.

(iii) This plan may not be copied unless this note is included.

Datum -        GDA 94   Projection -   MGA 94 Zone 56

Proposed Bundaberg State Development Area

The State Development and Public Works Organisation Act 1971

Legend

Secondary Roads
Local Connector Roads
Proposed State Development Area
Boundary
Cadastral Boundary (June 2016)

04008001,2001,600 200

Location reference and map extent

Disclaimer

Regulation Map
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