

Planning Proposal
Former Swansea Bowling Club Rezoning
2 Charles Street and 27 Lake Road, Swansea
Draft Amendment RZ/1/2014 to Lake Macquarie Local Environmental
Plan 2014

Preliminary Draft – Council Report Version

Local Government Area:	Lake Macquarie City Council (LMCC)	
Name of Draft LEP:	Draft Amendment RZ/1/2014 to Lake Macquarie Local Environment Plan 2014	
Subject Land:	2 Charles Street (Lot C DP 402886) and 27 Lake Road (Lot 63 DP 18797), Swansea	
Land Owner:	Belmont 16ft Sailing Club Limited	
Applicant:	ADW Johnston	
Folder Number:	RZ/1/2014	
Date:	3 March 2015	
Author:	Grant Alderson - Senior Strategic Landuse Planner	
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Part 1 – OBJECTIVES OR INTENDED OUTCOMES

To enable redevelopment of part of the former Swansea Bowling Club at 2 Charles Street and 27 Lake Road, Swansea, for residential housing.

Note: The subject land is generally suitable for residential housing, however, is flood prone and in an area vulnerable to increased flood and inundation risks due to sea level rise. Further investigation is required to determine if the land is suitable for housing. Should the planning proposal receive a Gateway determination to proceed, a flood risk and sea level rise risk management study is required to determine the appropriate housing density for the land.

Part 2 – EXPLANATION OF PROVISIONS

The planning proposal will amend LMLEP 2014 as outlined below.

Amendment Applies to	Explanation of provision
Land Use Zones map	Rezone the subject land from RE2 Public Recreation zone to a residential zone. The zoning options are R2 Low Density Residential zone and R3 Medium Density Residential zone.
Lot Size map	The subject land does not currently have a minimum lot size. The lot size options for the subject vary from prohibiting subdivision to allowing small lot subdivision.
Height of Buildings Map	The subject land has an existing maximum building height of 8.5m. The building height options for the land include: - Retaining the existing maximum building height of 8.5m, should an R2 Low Density Residential zone be applied to the subject land. - Increasing the maximum building height from 8.5m to 10m, should an R3 Medium Density Residential zone be applied to the subject land.

Part 3 – JUSTIFICATION

Section A – Need for the Planning Proposal

1. *Is the planning proposal a result of any strategic study or report?*

No. The subject land is part of the former Swansea Bowling Club (lawn bowling). The subject land is zoned RE2 Private Recreation under Lake Macquarie Local Environmental Plan 2014 (LMLEP 2014), and the remainder of the Swansea Bowling Club that is zoned R3 Medium Density Residential.

Following closure of the Swansea Bowling Club, the landowner submitted a request to rezone the subject land from RE2 Private Recreation to R3 Medium Density Residential consistent with the remainder of the Swansea Bowling Club.

Rezoning the subject land is not anticipated to have a significant impact on the supply of land zoned for private recreation purposes, as outlined in Appendix 1 of this planning proposal.

Rezoning the subject land for residential housing is generally consistent with NSW government and Council strategic land use plans, as outlined in Section B of this planning proposal. However, the land is flood prone, the extent of flooding will increase, and issues with local drainage problems and possible low level inundation may occur with predicated sea level rise of 900mm. Flood and sea level rise matters are evaluated in Table 2, Section B.6 of this document under the heading '*Ministerial Direction 4.3 – Flood Prone Land*'.

2. *Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?*

Yes. The subject land is currently zoned RE2 Public Recreation zone under LMLEP 2014, which prohibits residential housing. Rezoning the land for residential housing (either R2 Low Density Residential Zone or R3 Medium Density Residential Zone) will allow the land to be developed for residential purposes.

Section B – Relationship to Strategic Planning Framework

3. *Is the planning proposal consistent with the objectives and actions of the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft strategies)?*

Lower Hunter Regional Strategy (LHRS)

The primary purpose of the LHRS is to ensure that adequate land is available and appropriately located to sustainably accommodate the projected housing and employment needs of the Region's population until 2031.

The planning proposal is generally consistent with the LHRS. The subject land is located in an existing urban area under the LHRS map, and promotes infill housing adjacent to the Swansea town centre.

However, the subject land is flood prone and the flood risk is expected to increase with predicted sea level rise. The LHRS identifies that future urban development should not be located in areas of high risk from natural hazards (including flooding and sea level rise). Flood and sea level rise matters are evaluated in Table 2, Section B.6 of this document under the heading '*Ministerial Direction 4.3 – Flood Prone Land*'.

4. *Is the planning proposal consistent with a council's local strategy or other local strategic plan?*

Lifestyle 2030 Strategy (LS2030)

The Lifestyle 2030 Strategy (LS2030) provides the long-term direction for the overall development of the City and is a long-range land use strategic plan and policy document.

The Strategic Directions identified in the LS2030 describe the overall desired outcomes and general intentions sought by Council for future development in the City. In particular, the planning proposal aligns with the following strategic directions and outcomes:

Strategic Direction 1: A city responsive to the environment

Outcome 1.12: The LGA is prepared for the impacts of climate change, including adaptable infrastructure and buildings.

Strategic Direction 3: A well designed adaptable and liveable city

Outcome 3.1: The role of centres is consistent with the Centres Hierarchy as discussed, and shown on the Urban Structure map.

Strategic Direction 4: A well serviced and equitable city

Outcome 4.2: The capacity of existing urban areas to support more intensive urban development has been assessed and density provisions applied accordingly.

The subject land is also identified in the 'urban structure' map as urban area adjacent to the Swansea town centre. Flood and sea level rise matters are assessed in Table 2, Section B.6 of this document under the heading '*Ministerial Direction 4.3 – Flood Prone Land*'.

5. Is the planning proposal consistent with applicable State Environmental Planning Policies?

The planning proposal is generally consistent with the following relevant State Environmental Planning Policies (SEPPs) outlined in Table 1 below.

Table 1: Assessment of the Planning Proposal against relevant SEPPs

SEPP	Relevance	Implications
SEPP 32 – Urban Consolidation (Redevelopment of Urban Land)	The aims of the policy are to promote medium density residential redevelopment of urban land no longer required for its original intended use.	The proposal is considered to be generally consistent with the aims of the policy. The subject land is no longer required for its original intended use, and is proposed to be rezoned for residential purposes. The land is generally suitable for low density housing, however, a flood risk and sea level rise management study is required to determine if the land is suitable for medium density housing.
SEPP 55 – Remediation of Land	The aims of the policy are to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.	The proposal is considered to be generally consistent with the aims of the policy. An initial evaluation outlined in Appendix 2 identifies that the subject land is not anticipated to be significantly contaminated from past uses. However, the site has the potential for asbestos contamination from current and demolished structures, and has the potential for contamination from the presence of imported fill on the site. Should the land contain asbestos and contaminated fill, Council considers that the land can be remediated using established practices. In addition, Clause 7 of SEPP 55 ensures that land contamination is considered at the development application stage and the land will be remediated, if required, prior to use for residential purposes. Subsequently, no further investigation into land contamination matters is considered necessary at the rezoning stage.
SEPP 71 – Coastal Protection	The aims of the policy are to protect and preserve the coastal area.	The proposal is considered to be generally consistent with the aims of the policy. The proposal is located in the coastal zone. However, the proposal is not anticipated to have an adverse impact on the coastal area. The proposal will not result in significant development and is located within an established urban area 500m from the Lake Macquarie waterway.
SEPP (Infrastructure) 2007	The aims of the policy are to facilitate the effective delivery of infrastructure.	The proposal is considered to be consistent with the aim of the policy. The proposal is not anticipated to require new infrastructure or impact on major infrastructure proposals in the area. The proposal is also not considered to be traffic generating development.

6. Is the planning proposal consistent with applicable Ministerial Directions (s.117 (2) directions)?

The planning proposal is consistent with relevant Ministerial Directions, except for *Direction 4.3 – Flood Prone Land*, as outlined in Table 2 below. A flood risk and sea level rise risk management study is required to justify the inconsistency.

Table 2: Consistency with applicable Section 117(2) Ministerial Directions

Ministerial Direction	Objective/s	Consistency / Comment
1.3 Mining, Petroleum Production and Extractive Industries	Ensure that the future extraction of State or regionally significant reserves of coal, other minerals, petroleum and extractive materials are not compromised by inappropriate development.	The proposal is not anticipated to restrict mining, petroleum production or extractive industries, and is considered to be consistent with this direction.
2.2 Coastal Protection	Implement the principles in the NSW Coastal Policy.	The proposal is considered to be consistent with this direction. The proposal is located in the coastal zone. However, the proposal is not anticipated to have an adverse impact on the coastal area. The proposal will not result in significant development and is located within an established urban area 500m from the Lake Macquarie waterway.
2.3 Heritage Conservation	Conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance.	The proposal is considered to be consistent with this direction as there are no known heritage items or places of heritage significance in the vicinity of the site.
3.1 Residential Zones	(a) Encourage a variety and choice of housing types to provide for existing and future housing needs, (b) Make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and (c) Minimise the impact of residential development on the environment and resource lands.	The proposal is considered to be consistent with this direction, as it promotes infill housing in an established urban area with adequate services.
3.2 Caravan Parks and Manufactured Home Estates	(a) Provide for a variety of housing types, and (b) Provide opportunities for caravan parks and manufactured home estates.	The proposal is considered to be consistent with this direction. The existing RE2 Private Recreation zone applying to the land permits caravan parks. However, the site is only 4,800m ² in area and is considered to be too small to allow development for the purpose of a caravan park.

Ministerial Direction	Objective/s	Consistency / Comment
3.4 Integrating Land Use and Transport	Ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives: (a) improving access to housing, jobs and services by walking, cycling and public transport, and (b) increasing the choice of available transport and reducing dependence on cars, and (c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and (d) supporting the efficient and viable operation of public transport services, and (e) providing for the efficient movement of freight.	The proposal is considered to be consistent with this direction. The proposal will rezone land for residential purposes 400m from the Swansea town centre, which provides public transport and employment opportunities.
4.1 Acid Sulfate Soils	Avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulfate soils.	The proposal is considered to be consistent with this direction. The land is identified as having class 2 acid sulfate soils. Provisions in LMLEP 2014 (clause 7.1) ensure that development on the site will occur in accordance with relevant acid sulfate soil guidelines. These provisions will continue to apply to the site if it is rezoned.
4.2 Mine Subsidence and Unstable Land	Prevent damage to life, property and the environment on land identified as unstable or potentially subject to mine subsidence.	The direction does not apply as the land is not located within a proclaimed Mine Subsidence district, and is not identified as unstable.

Ministerial Direction	Objective/s	Consistency / Comment
4.3 Flood Prone Land	(a) Ensure that development of flood prone land is consistent with the NSW Government's Flood Prone Land Policy and the principles of the <i>Floodplain Development Manual 2005</i>, and (b) Ensure that the provisions of an LEP on flood prone land is commensurate with flood hazard and includes consideration of the potential flood impacts both on and off the subject land.	The direction applies, as the subject land is flood prone and the flood risk will increase with predicted sea level rise, as outlined in Appendix 3 The proposal is inconsistent with part (5) of this direction as it seeks to rezone the subject land from a recreational zone to a residential zone. A proposal may be justifiably inconsistent with this direction, if it is in accordance with a floodplain risk management plan. An evaluation of the proposal's consistency with Council's Flood Risk Management Plan is provided in Appendix 3. A flood risk and sea level rise risk management study is required to determine the appropriate housing density for the land
4.4 Planning for Bushfire Protection	(a) Protect life, property and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas, and (b) Encourage sound management of bush fire prone areas.	The direction does not apply as the land is not bush fire prone.
5.1- Implementation of Regional Strategies	The objective of this direction is to give effect to regional strategies.	The proposal is considered to be consistent with this direction. The proposal is generally consistent with the LHRS, with the exception of flooding matters which require further investigation.
6.2 Reserving Land for Public Purposes	(a) Facilitate the provision of public services and facilities by reserving land for public purposes, and (b) Facilitate the removal of reservations of land for public purposes where the land is no longer required for acquisition.	The direction does not apply as the land is zoned for 'private' recreation, and not 'public' recreation purposes.

Section C – Environmental, Social and Economic Impact

7. *Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?*

No. Critical habitat or threatened species, populations or ecological communities, or their habitats, are not located on the land or adjacent to the land.

8. *Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?*

Yes. The subject land is flood prone and in an area vulnerable to the impacts of future sea level rise. A flood risk and sea level rise risk management study requires to be undertaken to determine the appropriate housing density for the land.

9. *How has the planning proposal adequately addressed any social and economic effects?*

Rezoning the subject land is not anticipated to have a significant impact on the supply of land zoned for private recreation purposes, as outlined in Appendix 1 of this document.

Rezoning the subject land for residential housing is also generally consistent with NSW government and Council strategic land use plans. However, the subject land is flood prone and at risk of low level inundation with predicated sea level rise of 900mm. A flood risk and sea level rise risk management study requires to be undertaken to determine the appropriate housing density for the land

Section D – State and Commonwealth Interests

10. *Is there adequate public infrastructure for the planning proposal?*

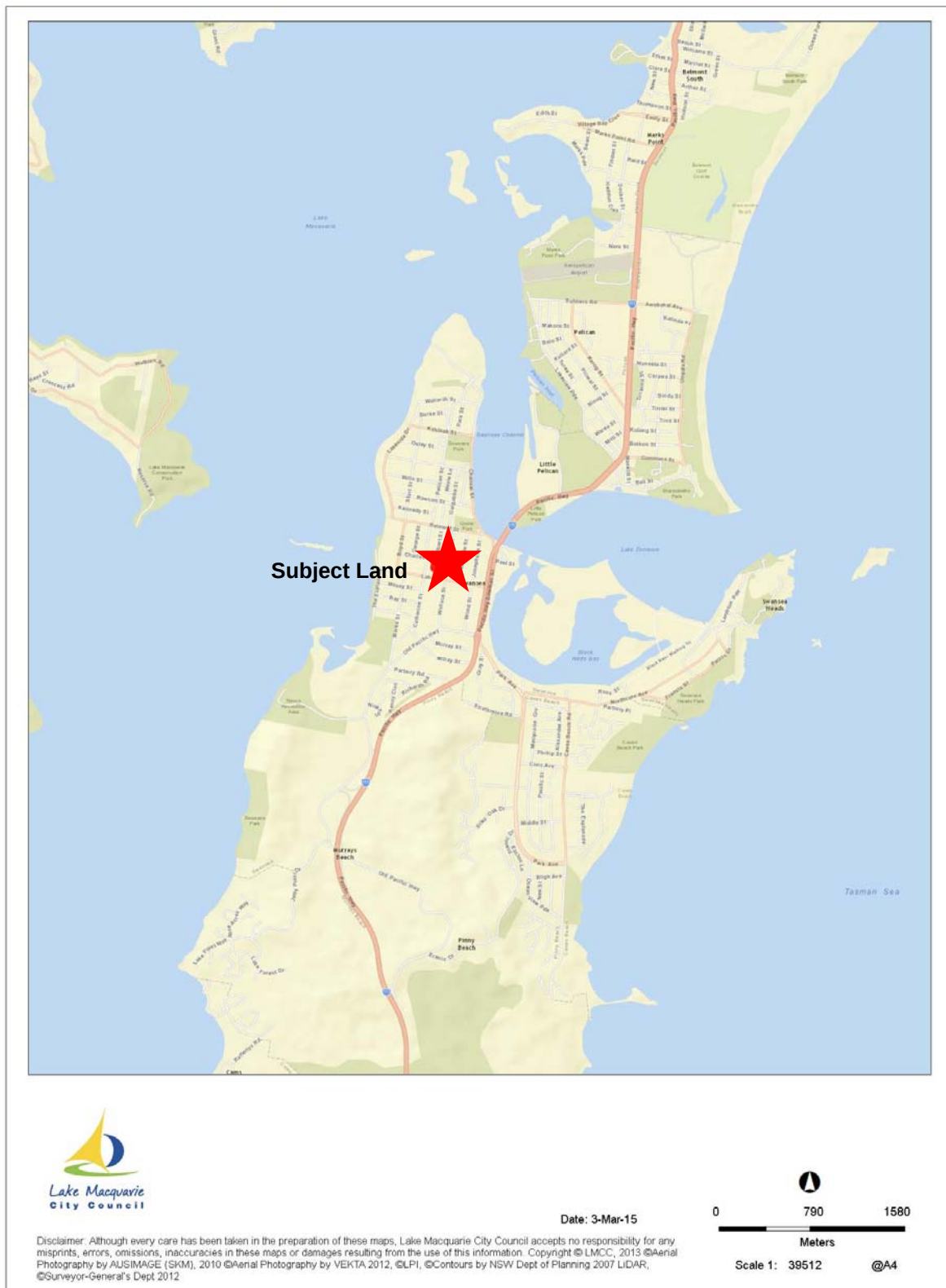
Yes. The subject land is located within an existing urban area. However, the subject land and servicing infrastructure is flood prone and parts are at risk of permanent inundation by predicated sea level rise of 900mm. A flood risk and sea level rise risk management study is required to determine the appropriate housing density for the land. This will include an evaluation of whether the servicing infrastructure will require to be upgraded to respond to predicted future sea level rise.

11. *What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway determination?*

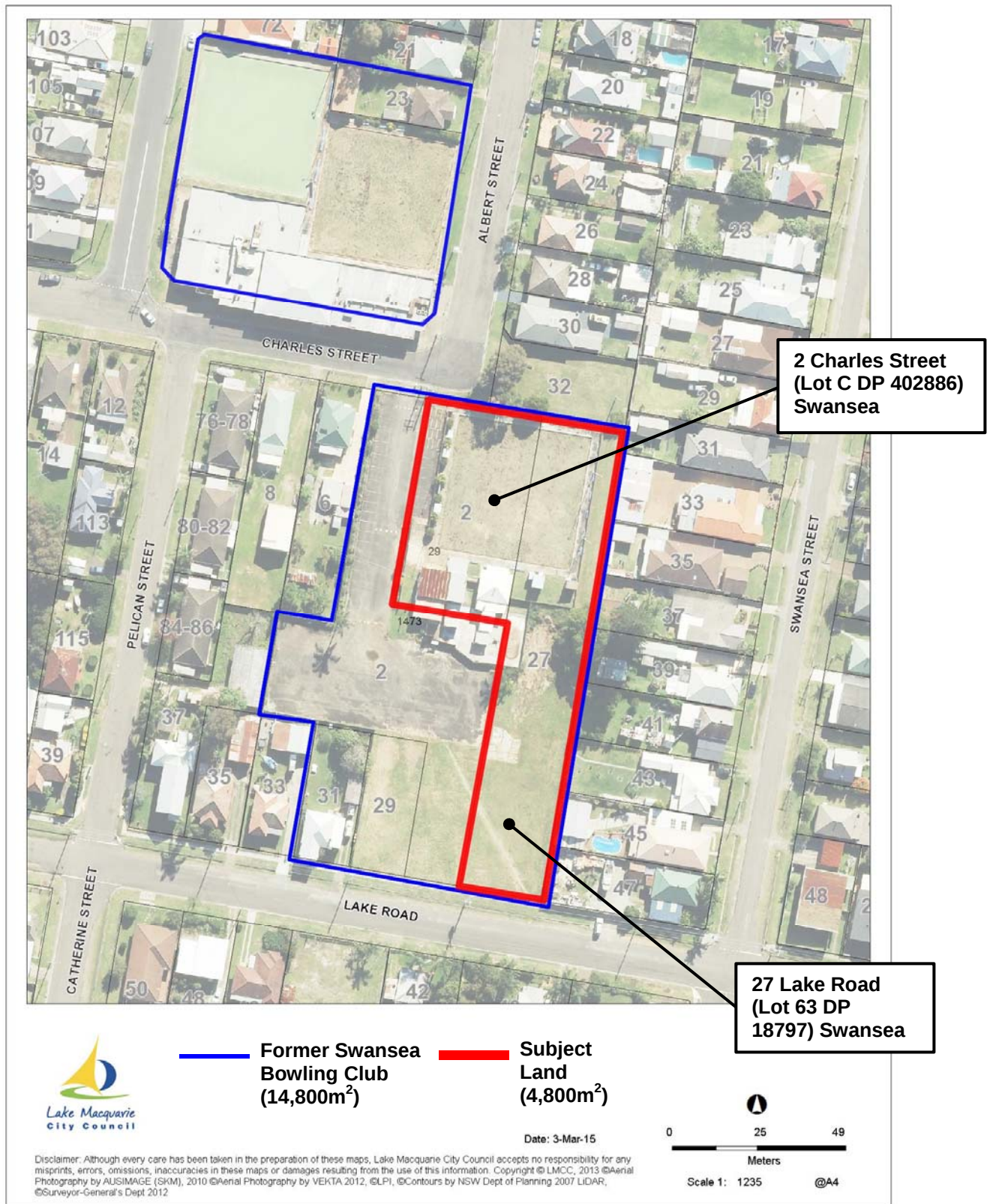
Consultation with State and Commonwealth public authorities will be determined as part of the Gateway determination. Council has identified that Hunter Water Corporation should be consulted as water and sewage infrastructure servicing the land is flood prone and likely to be affected by the impacts of sea level rise.

Part 4 – MAPPING

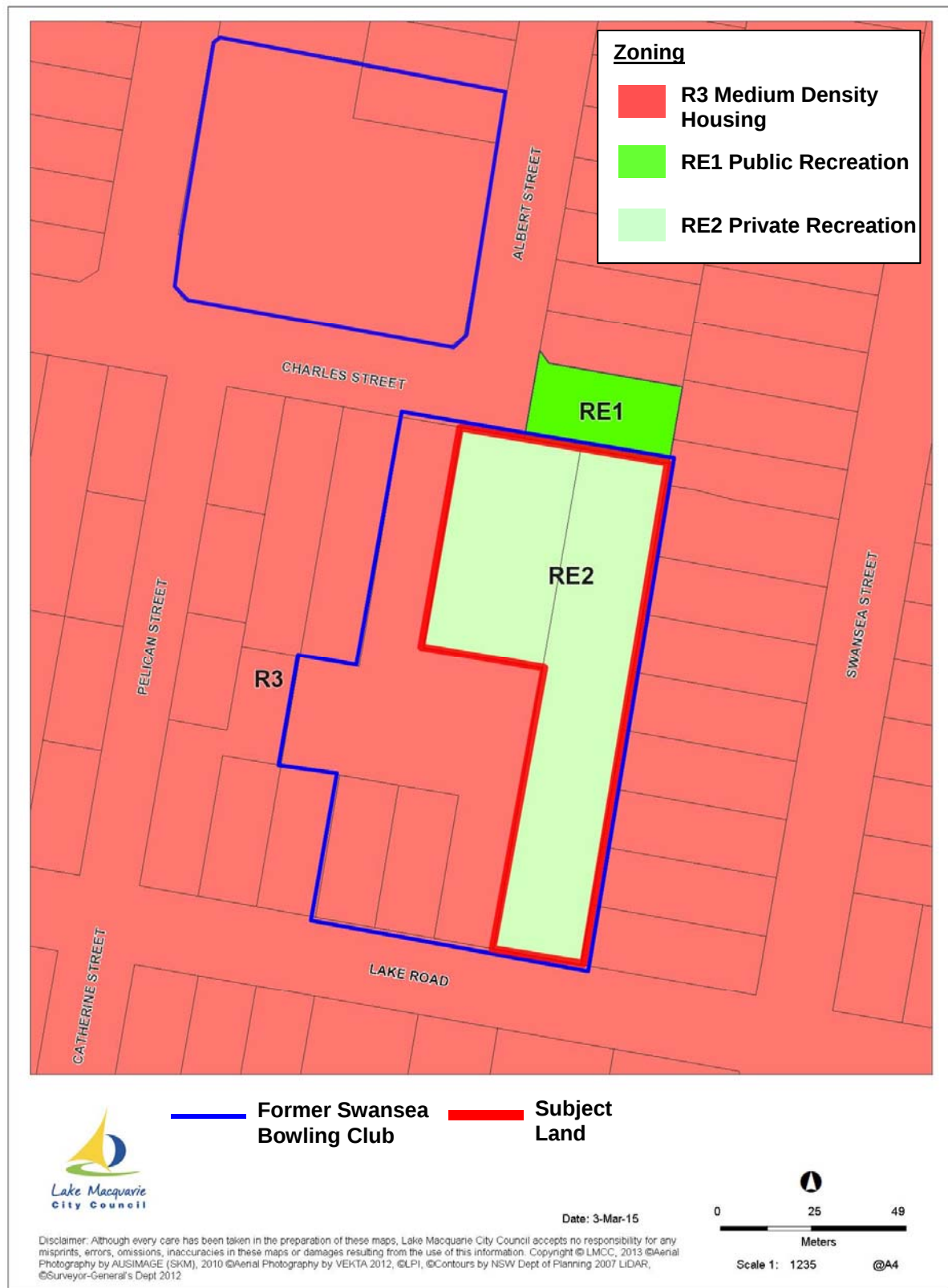
Map 1 – Locality Map



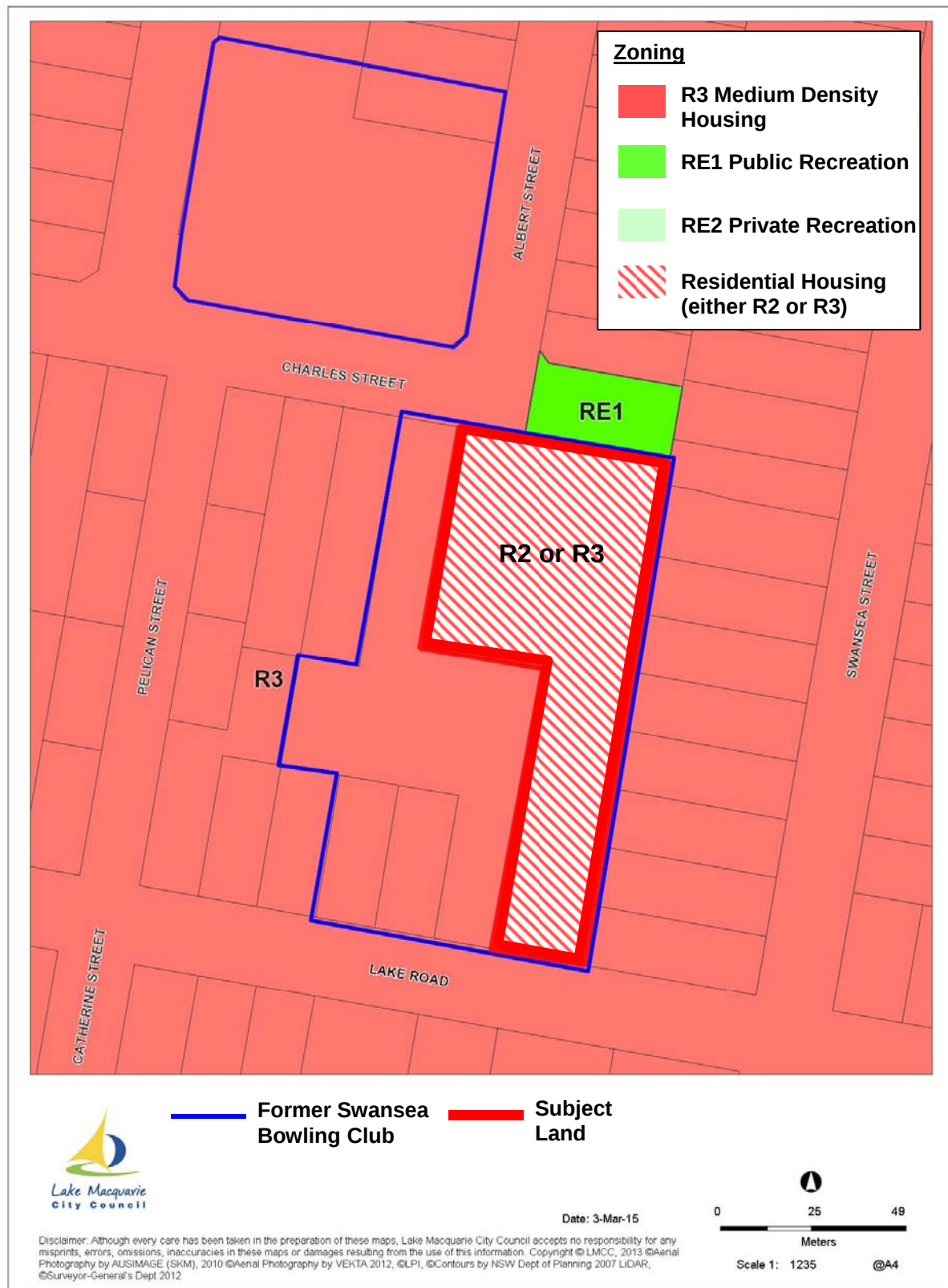
Map 2 – Aerial photograph



Map 3 – Current Zone under LMLEP 2014



Map 4 – Proposed Zone Options under LMLEP 2014



Part 5 – COMMUNITY CONSULTATION

Community consultation will be determined as part of the Gateway determination. Council recommends the proposal be exhibited for 14 days minimum.

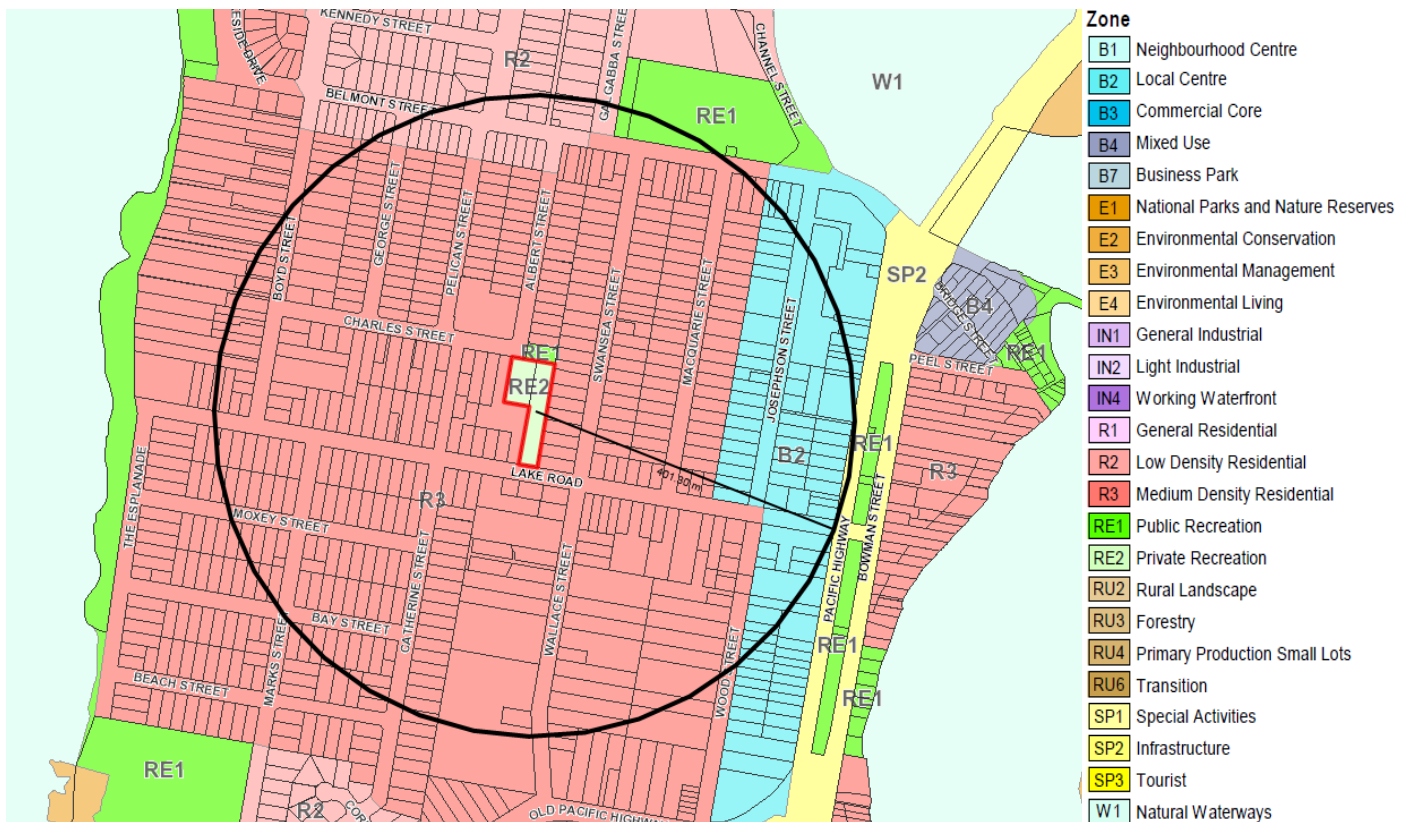
Part 6 – PROJECT TIMELINE

Action	Timeframe
Anticipated commencement date (date of Gateway determination)	April 2015
Anticipated timeframe for completion of required technical information	May to October 2015 (6 months)
Timeframe for government agency consultation (pre exhibition)	November 2015
Public exhibition (commencement and completion dates)	December 2015
Consideration of submissions	January 2016
Report Consultation findings to Council	February 2016
Date RPA will make Plan (if delegated)	March 2016

Appendix 1 – Review of Land Zoned for Private Recreation Purposes

The subject land is zoned RE2 Private Recreation under LMLEP 2014, which permits a broad range of private recreation and tourism uses. Rezoning the subject land to allow other land uses will not significantly impact on the potential for private recreation development in the surrounding area, as outlined below.

- The subject land is not a strategic tourism site (no direct lake / beach access or views), and is an irregular shape with a small land area (4,800m²). These constraints would likely limit redevelopment opportunities on the subject land for major private recreation facilities such as indoor swimming pools or tourists facilities such as visitor accommodation.
- Smaller scale private recreation uses such as gyms, squash courts and health studios could potentially be developed on the subject land. However, the Swansea town centre is located 400m from the subject land, and contains a large amount of B2 Local Centre zoned land (approximately 100,000m²), which also permits smaller scale private recreation uses such as gyms, squash courts and health studios. Subsequently, rezoning the subject land for another land use would only reduce the supply of land allowing smaller scale private recreation uses by 4,800m², or 5% of the total land supply for the uses in the surrounding area.



Land use zoning under LMLEP 2014

Appendix 2 – Initial Evaluation of the Potential for Land Contamination

1. Initial Evaluation

The following initial evaluation is generally in accordance with Section 3.2 of the *MANAGING LAND CONTAMINATION PLANNING GUIDELINES* (the Guidelines), published by the Department of Urban Affairs and Planning / Environment Protection Authority.

- 1. Have any previous investigations relating to land contamination been conducted on the property, or adjacent land, that indicate the potential for land contamination?**

No. The Lake Macquarie Contaminated Land or Potentially Contaminated Land Database does not identify that any studies have been conducted, or that the land, or adjacent land, is contaminated.

- 2. Has the property at any time been zoned for industrial, agricultural or defence purposes?**

No. The subject land was zoned for public or private recreation purposes under the Northumberland District Planning Scheme 1960, and Lake Macquarie Local Environmental Plan (LMLEP) 1984 and 2004. The subject land is current zoned for private recreation purposes under LMLEP 2014.

- 3. Has an activity listed in Table 1 ever occurred on the property or been approved on the property?**

No.

- 4. Has the property ever been regulated through licensing or other mechanisms in relation to any activity listed in Table 1?**

No

- 5. Are there any land use restrictions on the property relating to possible contamination, such as notices issued by the EPA or other regulatory authority?**

No

- 6. Does a site inspection suggest that the property may have been associated with any activities listed in Table 1?**

No

- 7. Are you aware of information of contamination on land immediately adjacent to the property, which may result in potential contamination of the property?**

No

Table 1 - Some Activities that may Cause Contamination (referenced from p. 12 of the Guidelines)

• acid/alkali plant and formulation	• engine works	• power stations
• agricultural/horticultural activities	• explosives industry	• railway yards
• airports	• gas works	• scrap yards
• asbestos production and disposal	• iron and steel works	• service stations
• chemicals manufacture and formulation	• landfill sites	• sheep and cattle dips
• defence works	• metal treatment	• smelting and refining
• drum re-conditioning works	• mining and extractive industries	• tanning and associated trades
• dry cleaning establishments	• oil production and storage	• waste storage and treatment
• electrical manufacturing (transformers)	• paint formulation and manufacture	• wood preservation
• electroplating and heat treatment premises	• pesticide manufacture and formulation	

2. Additional Considerations

The following matters were considered as they are potential land contamination sources specific to the Lake Macquarie LGA.

8. Is it likely that any current structures on the property contain asbestos building materials?

Yes. Aerial photographs indicate that several structures were constructed on the subject land between the year 1950 and 1979. Council has no records of the structures. Asbestos was commonly used in building products between the 1940s and 1980s. Subsequently, the structures could have contained asbestos.



Aerial Photograph 1950



Aerial Photograph 1979



Aerial Photograph 2014

9. Have any structures been demolished on the property that could have contained asbestos building materials?

Yes. Aerial photographs indicate that several structures were located on the subject land in the year 1950 that have been demolished. Council has no records of the structures or their demolition. Asbestos was commonly used in building products between the 1940s and 1980s. Subsequently, the structures could have contained asbestos.

10. Have any parts of the property been excavated that have the potential for acid sulphate soils?

Potentially. Council's Potential for Acid Sulphate Soil map identifies that the subject land has class 2 acid sulphate soils. Excavation is anticipated to have occurred on the land as part of constructing structures on the land and servicing the land.

11. Have any parts of the property been filled with off-site material that could include:

- i. black slag from the former Pasminco Cockle Creek lead smelter;
- ii. fill contaminated with asbestos; and/or
- iii. any other unidentified potentially contaminated material?

Potentially. The site has some fill under bowling greens, which has not been tested for contamination.

12. Is the site categorized by Department of Defence as having substantial or slight potential of containing Unexploded Ordnance (UXO)? (applicable to the localities of Redhead, Jewells, Belmont North, Belmont South and Catherine Hill Bay only)

No.

Appendix 3 – Preliminary Evaluation of Flood Risk and Sea Level Rise Risk

1. Subject Land

1.1 Topography

Council's aerial survey data indicates that the subject land and servicing infrastructure such as roads and drainage are located between 1m and 1.5m Australian Height Datum (AHD), as shown in the figure below.



**Subject
Land
(4,800m²)**

1.2 Existing Development and Zoning

The subject land currently contains two buildings with an estimated combined floor area of 230m² and a lawn bowling green used intermittently for sporting activities, as shown in the figure below.

The subject land is zoned RE2 Private Recreation under Lake Macquarie Local Environmental Plan (LMLEP) 2014, which permits uses including private sporting facilities and tourist and visitor accommodation up to 8.5m in height.



2. The Lake Macquarie Waterway Flood Risk Management Study and Plan, 2012

2.1 Flood and Sea Level Rise Risk

The *Lake Macquarie Waterway Flood Risk Management Study and Plan*, adopted by Council in 2012, identifies that the current 1-in-100-year flood level for the subject land is currently 1.5m AHD. In addition, when future sea level rise benchmarks are included:

- land below 0.5m AHD is anticipated to be permanently inundated by the year 2050, and the 1-in-100-year flood event is predicated to be 1.86m AHD.
- land below 1m AHD is anticipated to be permanently inundated by the year 2100, and the 1-in-100-year flood event is predicated to be 2.32m AHD.

As a result, the subject land and infrastructure that services it is currently flood prone with a 1-in-100-year flood event, with flood levels projected to increase due to future sea level rise. Part of the site and servicing infrastructure may also be at risk of permanent inundation in the future from predicted sea level rise. It is expected that the water table will also rise and local drainage problems, following any rainfall event, will increase.

Note: A copy of the *Lake Macquarie Waterway Flood Risk Management Study and Plan* is available online at: www.lakemac.com.au/environment/natural-disaster/flooding

2.2 Strategic Land Use Planning Considerations

The *Lake Macquarie Waterway Flood Risk Management Study and Plan* states:

"In general, it is likely to increase the risk to persons and property, if more buildings, infrastructure and people are located in flood hazard areas, particularly high hazard areas and areas vulnerable to permanent inundation. So, land in the lake flood hazard areas should not be re-zoned if it increases development intensity" (p. 71).

The study and plan states that this approach is consistent with the *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*. However, it also states that it is contrary to the aim of the *NSW Government's 2005 Floodplain Development Manual*, which seeks to allow new development in flood affected areas, provided the risk is adequately assessed and managed.

Accordingly, the strategic guidance provide by the study and plan is that rezoning flood prone or sea level rise affected land should not result in intensification, unless an assessment has been undertaken identifying that the flood risk and sea level risk can be adequately managed.

3. Consistency with the Lake Macquarie Waterway Flood Risk Management Study and Plan

3.1 Rezoning the land for low density housing

Rezoning the land for low density housing, if subdivision is not permitted, will:

- increase the existing building height limit of 8.5m.
- potentially yield two dwelling houses.
- not increase the development intensity compared to the 'adjacent' land, which is either undeveloped or consists of detached housing.

3.2 Rezoning the land for medium density housing

Rezoning the land for medium density housing will:

- increase the 'potential' development intensity permissible under LMLEP 2014 from two to three stories (increasing the maximum building height from 8.5m to 10m).
- significantly increase the 'actual' development intensity on the site. The subject land currently only includes two buildings equivalent in size to a new detached house. Medium density development on the land could result in the development yields shown in the table below.

Development Type	Estimated Development Potential of the Subject Land (0.48 ha)
Two to three storey apartments with surface parking (30 to 80 units per hectare)	14 to 38 units
Three storey apartments with basement parking (60 to 120 units per hectare)	29 to 58 units
Note: Development densities are offered as a guide only and are based on the 'Net Residential Reference Chart' published by LandCom, available online at http://www.landcom.com.au/news/publications-and-programs/residential-density-guide.aspx	

- increase the development intensity compared to the 'adjacent' land, which is either undeveloped or consists of detached housing.

4. Summary

Rezoning the land for medium density housing will increase the 'potential' and 'actual' development intensity on the land, and an assessment demonstrating that flood risk and sea level rise risk is manageable has not been undertaken for the site.

4.1 Further Investigation

In order to determine if the subject land is suitable for housing, a site-specific flood risk and sea level rise risk management study should be undertaken that addresses the following matters:

1. *Survey the subject land to confirm land elevation and flood level and inundation depths with a current 1% flood, a sea level rise increase of 400mm and a sea level rise increase of 900mm.*
2. *Determine the associated level of flood and sea level rise hazards under the Lake Macquarie Waterway Flood Risk Management Study and Plan using current 1% flood levels and the 400mm and 900mm sea level rise benchmarks.*
3. *Prepare concept plans for housing (detached dwellings, attached dwellings, multi dwelling housing, residential flat buildings) and small lot subdivision that respond to the flood risk and sea level rise risk associated with the subject land.*
4. *Evaluate the concept plans and determine if they are consistent with the flood and sea level rise development controls under Lake Macquarie Development Control Plan 2014 and associated guidelines.*
5. *Determine if the concept plans will significantly affect the flood behaviour on adjacent properties.*
6. *Determine if safe emergency evacuation routes are available from the subject land in a flood event.*
7. *Demonstrate how the existing infrastructure, including roads, drainage, potable water, sewerage and electricity supply, servicing the subject land, can be adapted to future sea level rise.*