

Central Coast Council

Sewage Treatment Plant Buffer Zones Policy

Date Adopted: 10/12/2024
Revision: 2

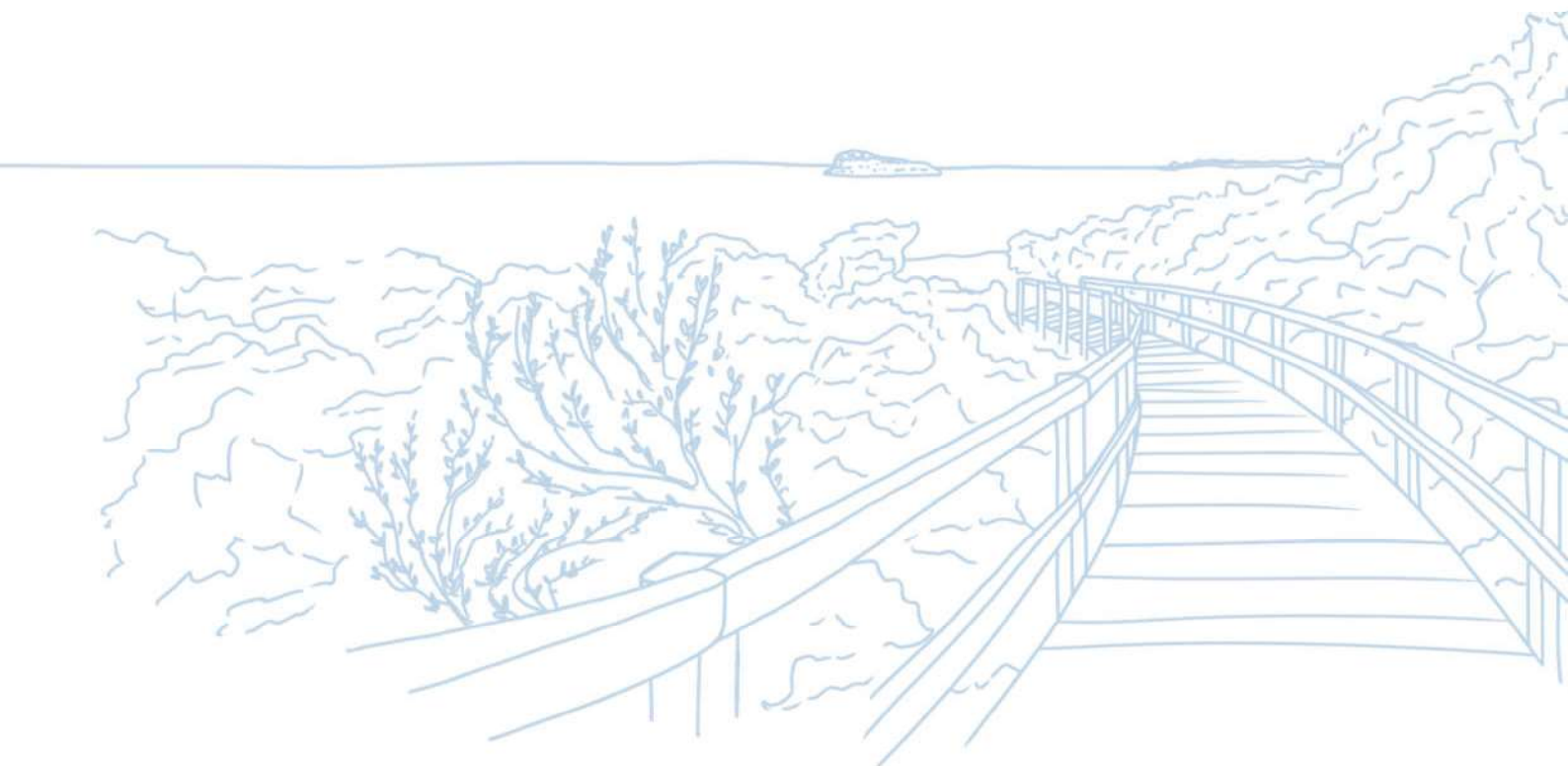


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1. Policy Objectives

- 1.1. Central Coast Council (**Council**) is a local water utility under the *Local Government Act 1993* (NSW). The operations of Council's Sewage Treatment Plants (**STPs**) are subject to external regulation, including Environmental Protection Licences issued by the NSW Environment Protection Authority (**EPA**).
 - 1.2. This Policy outlines Council's approach to setting and dealing with applications for development within buffer zones at STPs.
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2. Policy Scope

- 2.1. This Policy covers all elected members of Council, all personnel employed by Council, any person or organisation contracted to or acting on behalf of Council, any person or organisation employed to work on Council premises or facilities, and all activities of the Council.
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3. Policy Statement

- 3.1. Council establishes buffer zone areas around its STPs to minimise the impacts of odours, noise, and other adverse environmental effects on existing and future development. This is required to minimise the risk of impacts to the surrounding community and future regulatory risks to council as the STP owner.
 - 3.2. There will always be pressure for future development to encroach into a STPs buffer zone and a policy is required to retain suitable buffer zones.
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4. Background

- 4.1. Historically STP buffer zones were set on a fixed distance of 400m from the perimeter of the site infrastructure, in line with a former NSW Department of Planning Circular No. E3. In the absence of suitable odour modelling and accompanying risk assessments, a 400m buffer zone width applied.
- 4.2. Council owns, operates, and manages the following eight STPs, under three Environmental Protection Licences issued by the EPA:
 - Bateau Bay
 - Charmhaven
 - Gwandalan
 - Kincumber
 - Mannering Park
 - Toukley
 - Woy Woy
 - Wyong South

5. Basis for determining buffer zones

- 5.1. Council will determine appropriate buffer zones in accordance with the Draft NSW Best Practice Odour Guideline, NSW Department of Planning, 2010 which is intended to replace the former NSW Department of Planning Circular No. E3.
- 5.2. The above Draft Guideline sets buffer zones on the basis of predicted odour concentration rather than adopting a fixed distance from an odour source. Please see summary at Appendix 1 for details.

6. Management of Sewage Treatment Plant Buffer Zones

- 6.1. Council will endeavour to control odours, noise, or other environmental impacts, in compliance with relevant legislation and regulatory requirements, in order to minimise the impact of the STP on properties outside the buffer zone.
- 6.2. Council will not permit development within the buffer zone which is incompatible with the intent of the buffer zone, or which may threaten the long-term viability of the treatment plants. There is currently no definitive list of compatible uses within STP buffer zones. However, any compatible uses would be those that do not warrant a high level of protection from any residual air emissions or other adverse impacts from the STP.
- 6.3. Uses which may be considered compatible within an STP buffer zone include:
 - Grazing and agricultural uses
 - Constructed wetlands and drainage basins
 - Flora and fauna reserves
 - Certain industrial uses such as waste processing, abattoirs etc.
- 6.4. Council may seek to rezone and/or acquire selected properties within the buffer zone. This will depend upon Council's ability to fund such acquisitions and the importance of the property to achievement of the policy objective.

7. Existing Site Specific Sewage Treatment Plant Buffer Zones Resolved by Council

- 7.1. Gwandalan, Kincumber, Woy Woy and Wyong South STPs are subject to existing defined buffer zones which have been subject to previous individual Council approvals.
 - 7.1.1. Buffer zones for the Kincumber and Woy Woy STPs are defined via the previous Gosford City Council STP Buffer Zone Policy.
 - 7.1.2. Gwandalan STP had its buffer zone set by Council resolution in August 2013 in response to requests to rezone land, and an odour study completed by Wyong Shire Council staff.

7.1.3. A formal buffer zone for Wyong South STP was formed as part of the 1991 Wyong Local Environmental Plan, with the buffer area incorporated into the current Special Purpose (Infrastructure) zone which surrounds the STP.

7.2. Existing formalised buffer zones are shown in Appendix 2. The remaining four STPs are managed in accordance with the above described policy provisions when reviewing rezoning requests and development applications based on the most recent odour studies and risk assessments commissioned by Council Staff.

8. Responsibilities

Compliance, monitoring and review

8.1. Council will undertake periodic odour studies at its eight STPs. The timing of assessments will consider upcoming upgrades/processes changes that would result in a material change in odour generation patterns from the site.

8.2. This policy will be reviewed at least once per term of Council.

Reporting

8.3. Suspected breaches or misuse of this policy are to be reported to the Chief Executive Officer. Alleged breaches of this policy shall be dealt with by the processes outlined for breaches of the Code of Conduct, as detailed in the Code of Conduct and in the Procedures for the Administration of the Code of Conduct.

Records management

8.4. Staff must maintain all records relevant to administering this protocol in accordance with Council's [Information and Records Management Policy](#).

9. Policy Definitions

Buffer Zones	are commonly applied to sewage treatment plants to minimise the impacts of odours, noise, and other adverse environmental effects on existing and future development, as well as minimising impacts on sensitive receivers. They require a large area with appropriate land use controls to exclude odour sensitive land uses, such as residential and/or commercial activities.
Council	means Central Coast Council
Odour	(or smell) means a sensation resulting from the reception of a stimulus by the olfactory sensory system. Human response to an odour depends on the intensity, detectability, character, and tone of the odour. The combined effect of these properties is related to the annoyance that may be caused by the odour.

OU	means odour units, concentration of odorous mixtures in odour units. This threshold of detecting an odour (1 OU) is the numerical value equivalent to when 50% of a testing panel correctly detect an odour. 2 OU is the typical value when an odour is considered to start to cause annoyance.
Sewage Treatment Plant (STP)	means a facility for the treatment and disposal of sewage, whether or not the facility supplies recycled water for use as an alternative water supply.

10. Policy Administration

Business Group	Water and Sewer
Responsible Officer	Unit Manager Assets and Projects
Associated Procedure (if any, reference document(s) number(s))	N/A
Policy Review Date	Three years from date of adoption
File Number / Document Number	D16252801
Relevant Legislation (reference specific sections)	<p>This Policy supports Council's compliance with the following legislation:</p> <ul style="list-style-type: none"> ▪ Protection of the Environment Operations Act 1997 ▪ Local Government Act 1993
Link to Community Strategic Plan	<p>Theme 4: Responsible</p> <p>Goal H: Delivering essential infrastructure</p> <p>R-H4: Plan for adequate and sustainable infrastructure to meet future demand for transport, energy, telecommunications and a secure supply of drinking water.</p>
Related Policies / Protocols / Procedures / Documents (reference document numbers)	<ul style="list-style-type: none"> ▪ Information and Records Management Policy ▪ Code of Conduct ▪ Delegations Register ▪ Draft NSW Best Practice Odour Guideline 2010 ▪ Technical Framework: Assessment and Management of Odour From Stationary Sources in NSW 2006 ▪ Former Wyong Shire Council resolution for Gwandalan Sewage Treatment Plant Buffer Zone, August 2013 (CM: D03727593)

11. Policy Authorisations

No.	Authorised Function	Authorised Business Unit / Role(s)
N/A	This Policy outlines Council's approach to setting and dealing with applications for development within sewerage treatment buffer zones at STPs.	All personnel employed by Council, any person or organisation contracted to or acting on behalf of Council

12. Policy History

Revision	Date Approved / Authority	Description Of Changes
1	Chief Executive Officer 2 July 2020 D14055358	New policy adopted, consolidated the previous Gosford City Council <i>Sewage Treatment Works Policy Buffer Zones Policy</i>
2	Executive Leadership Team 10 December 2024 (Agenda) Item no. 1.1	Adopted the policy in new template with minor amendments. Three year review timeframe for policy.

13. Appendices

Appendix 1 - Applying the Draft NSW Best Practice Odour Guideline

Appendix 2 – Odour Buffer Zone Maps

Appendix 1 – Applying the Draft NSW Best Practice Odour Guideline

1. The Draft NSW Best Practice Odour Guideline, NSW Department of Planning 2010, states that no individual should be exposed to ambient odour levels greater than 7 odour units (**OU**) and the level at which odours begin to cause annoyance is 2 OU. The criteria are shown in Table 1 below, noting the values are 99th percentiles.

Table 1 Department of Environment & Conservation Odour Assessment Criteria

Population of affected community	Odour assessment criteria (odour units)
Rural single residence (<2)	7
10	6
30	5
125	4
500	3
Urban areas (>2000) and/or schools and hospitals)	2

2. The 2 OU contour represents the minimum extent of buffer zone required to minimise the risk of odour exposure and odour complaints within the community. The adoption of the 1 OU contour represents a desirable extent of buffer zone to provide a factor of safety to ensure compliance with the regulated 2 OU criterion in the event of process upsets, odours resulting from emptying of tanks or inaccuracies in the odour modelling.
3. In assessing overall suitability of the 1 or 2 OU level to establish the odour buffer zone, staff will consider various local conditions relevant to each Sewage Treatment Plant (STP). These will include but are not limited to:
 - a. the operational risk profile of the STP
 - b. future upgrades and expansion requirements for the STP
 - c. future development potential/constraints within the surrounding land and provisions within relevant State Government Land Use Planning documents.

Appendix 2 – Odour Buffer Zone Maps

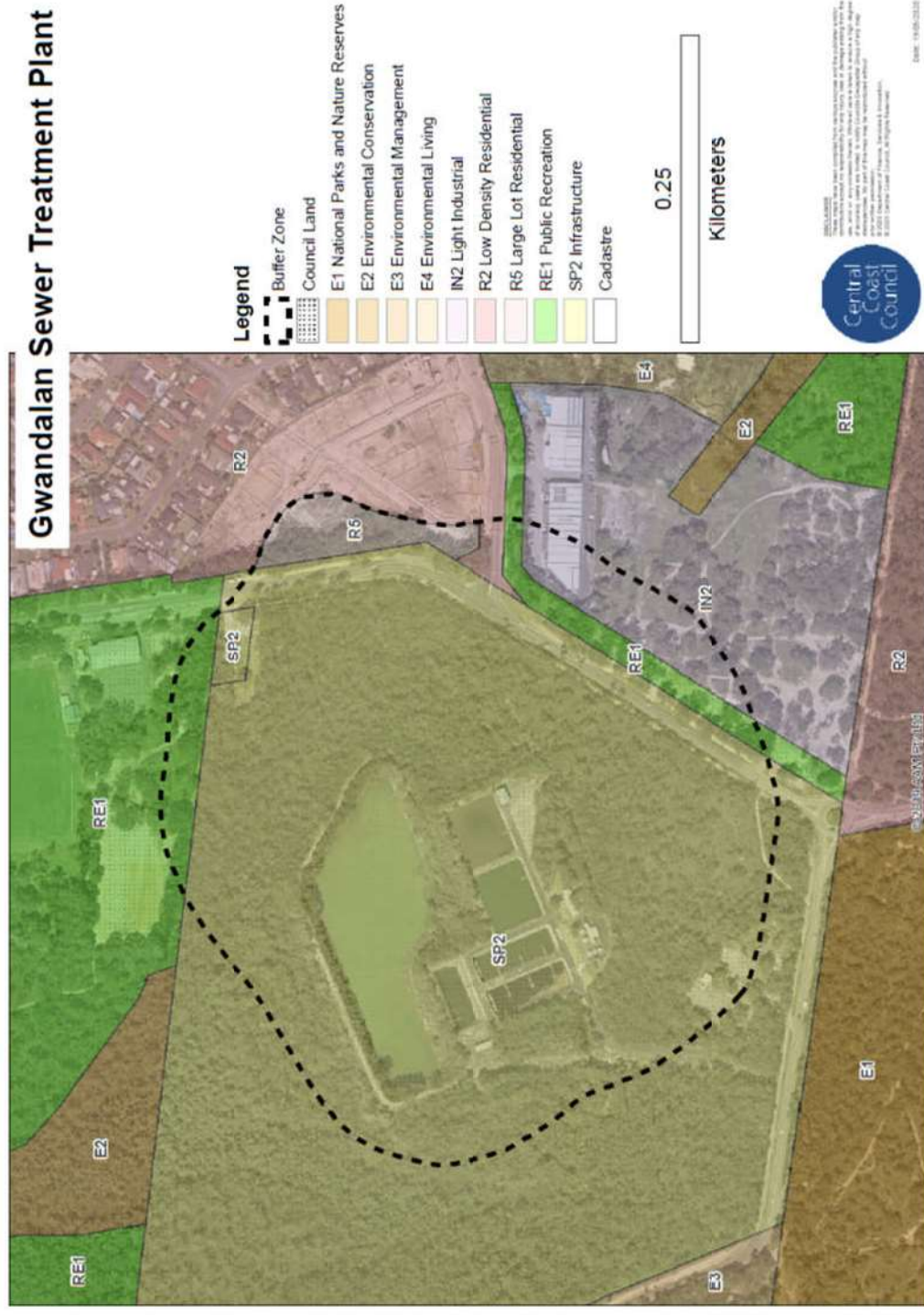
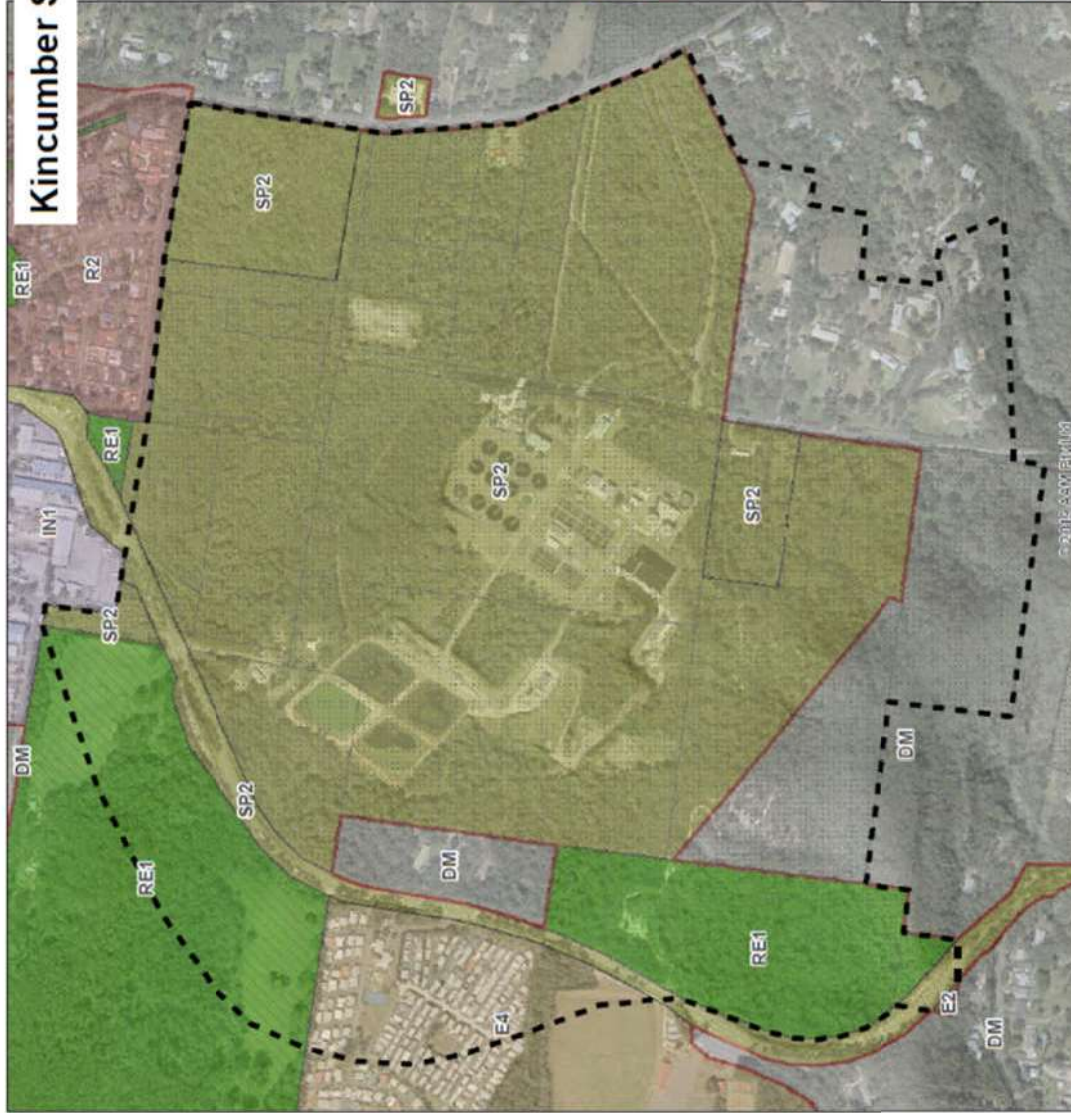


Figure 1 Gwandalan Sewage Treatment Plant Buffer Zone

Kincumber Sewer Treatment Plant



- Legend**
- Buffer Zone
 - Council Land
 - Crown Land
 - E2 Environmental Conservation
 - E4 Environmental Living
 - IN1 General Industrial
 - R2 Low Density Residential
 - RE1 Public Recreation
 - SP2 Infrastructure
 - DM Deferred Matter
 - Cadastral

0.25
Kilometers

Central Coast Council

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DATE: 15/02/2022

Figure 2 Kincumber Sewage Treatment Plant Buffer Zones

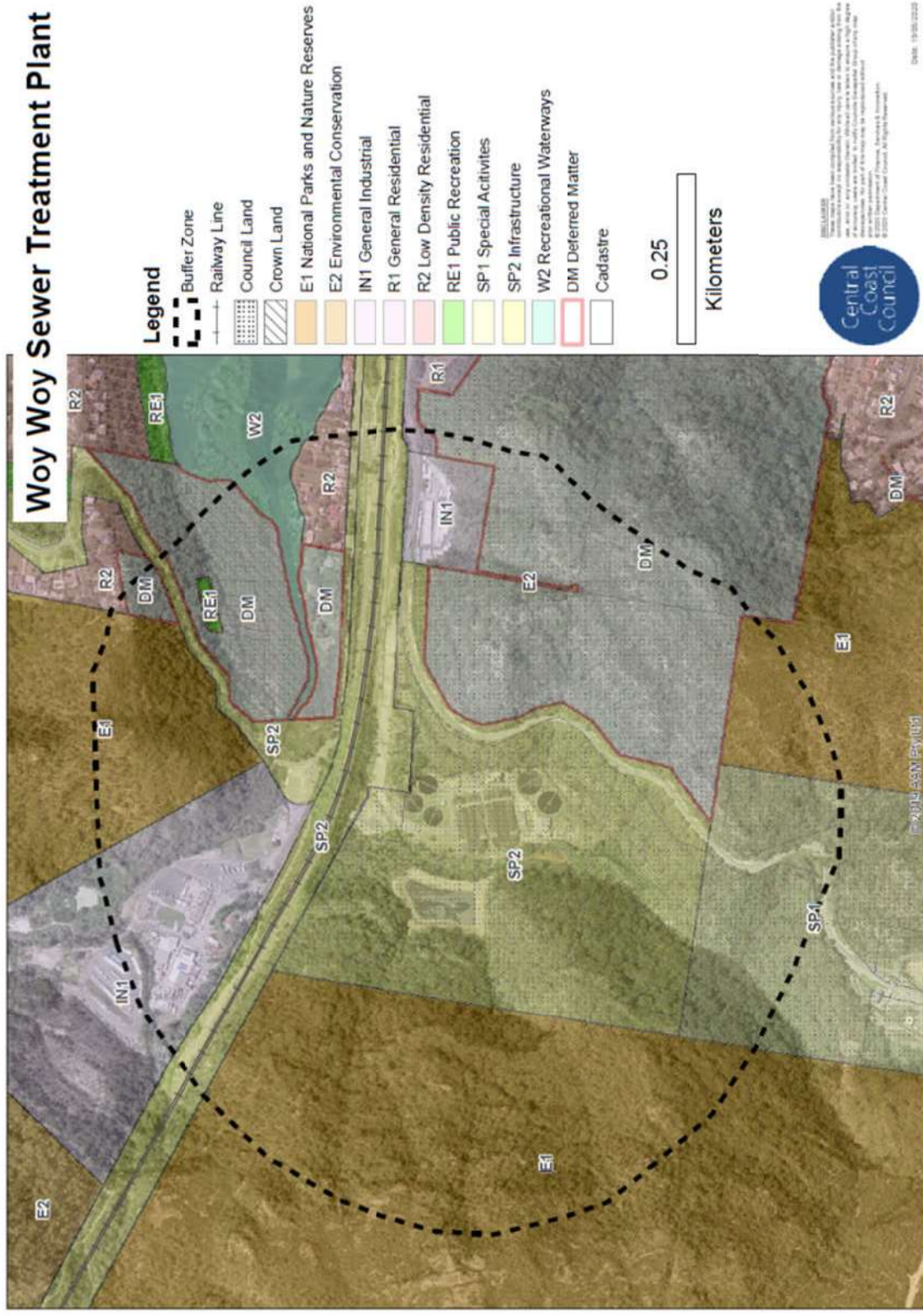


Figure 3 Woy Woy Sewage Treatment Plant Buffer Zones Policy



Figure 4 Wyong South Sewer Treatment Plant Buffer Zones