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# **Council Meeting Attachments Excluded From Agenda**

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24 February 2025



**ORDINARY MEETING**



**UPPER HUNTER SHIRE COUNCIL**

**Ordinary Meeting - 24 February 2025**

**TABLE OF CONTENTS**

**DEVELOPMENT REPORTS**

**Draft Planning Agreement - Development Application No.230/2022**

**Attachment 1:** Barton Street Draft Planning Agreement ..... 2

**Regional Drought Resilience Plan**

**Attachment 1:** Singleton, Muswellbrook and Upper Hunter Regional  
Drought Resilience Plan ..... 33



## Deed

# Barton Street Road Realignment and Causeway Planning Agreement

Under s7.4 of the *Environmental Planning and Assessment Act 1979*

**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

**[Drafting Note: to be inserted]**

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**lindsaytaylorlawyers**  
Level 18, Suite 1, 420 George Street, Sydney NSW 2000, Australia  
T 02 8235 9700 • W [www.lindsaytaylorlawyers.com.au](http://www.lindsaytaylorlawyers.com.au) • E [mail@lindsaytaylorlawyers.com.au](mailto:mail@lindsaytaylorlawyers.com.au)  
**LTL Pty Ltd** trading as **Lindsay Taylor Lawyers** • ABN 78 607 889 887  
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## Table of Contents

REGULATORY COMPLIANCE TABLES .....	5
Table 1 – Provisions of Act .....	5
Table 2 – Provisions of Regulation .....	7
PARTIES .....	8
BACKGROUND .....	8
OPERATIVE PROVISIONS .....	8
PART 1 - PRELIMINARY .....	8
1 Definitions & Interpretation .....	8
Definitions .....	8
Interpretation .....	11
2 Status of this Deed .....	12
3 Commencement .....	12
4 Application of this Deed .....	12
5 Warranties .....	12
6 Further agreements .....	12
7 Surrender of right of appeal, etc. ....	13
8 Application of s7.11, s7.12 and Subdivision 4 of Division 7.1 of the Act to the Development .....	13
Section 7.11 of the Act .....	13
Section 7.12 of the Act .....	13
Subdivision 4 of Division 7.1 of the Act .....	13
PART 2 – DEVELOPMENT CONTRIBUTIONS .....	13
9 Provision of Development Contributions .....	13
Development Contributions .....	13
Application of Development Contributions .....	14
10 Payment of monetary Development Contributions .....	14
PART 3 – DISPUTE RESOLUTION .....	14
11 Dispute Resolution – mediation .....	14
Application of clause .....	14
When Dispute arises .....	14
Meeting between Parties .....	14
Meditation of Dispute .....	14
Exercise of legal rights .....	14
Costs .....	15
12 Breach of obligations .....	15

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Score Rise Pty Ltd**

---



Notice of breach .....	15
Recovery of costs by Council as debt due .....	15
Exercise of Council's rights at law or in equity .....	15
13 Enforcement in a court of competent jurisdiction .....	16
PART 5 – REGISTRATION & RESTRICTION ON DEALINGS .....	16
14 Registration of this Deed .....	16
Application of clause .....	16
Documents for registration.....	16
Removing notation from title .....	16
15 Restriction on dealings.....	17
Restriction .....	17
Continued performance of obligations by Developer .....	17
Exclusion from restriction .....	17
PART 6 – INDEMNITIES & INSURANCE.....	17
16 Risk .....	17
17 Release .....	17
18 Indemnity.....	18
PART 7 – OTHER PROVISIONS.....	18
19 Review of Deed .....	18
Obligation to review Deed .....	18
Review triggers .....	18
Duty of Parties .....	18
Where change of law occurs .....	18
No Dispute .....	18
20 Notices.....	19
21 Approvals and Consent .....	19
22 Costs of this Deed.....	19
Costs of Deed .....	19
Enforcement costs .....	20
No dispute.....	20
23 Entire Deed.....	20
24 Further Acts.....	20
25 Governing Law and Jurisdiction .....	20
26 Joint and Individual Liability and Benefits .....	21
27 No Fetter .....	21
28 Illegality .....	21

**Barton Street Road Realignment and Causeway  
Upper Hunter Shire Council  
Scone Rise Pty Ltd**

---



29 Severability..... 21

30 Amendment ..... 21

31 Waiver ..... 21

32 GST ..... 22

33 Explanatory Note ..... 23

SCHEDULE 1: VPA PARTICULARS ..... 24

SCHEDULE 2: DEVELOPMENT CONTRIBUTIONS TABLE ..... 26

APPENDIX: EXPLANATORY NOTE..... 29

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**



## Regulatory Compliance Tables

**Table 1 – Provisions of Act**

Act Provision	Requirement	Compliance
<b>S.7.4(1)</b>	<b>'Planning Authority'</b>	Council
	<b>'Developer'</b>	Developer
	<b>Person associated with Developer</b>	N/A
	<b>Development Application / Modification Application</b>	See definitions of ' <i>Development Application</i> ' and ' <i>Modification Application</i> ' in clause 1.1 and Item 4.a and 4.b of the VPA Particulars
	<b>Development Contributions</b>	See Part 2 and Development Contributions Table
<b>S.7.4(1), (2)</b>	<b>Public Purpose</b>	See Column 2 of the Development Contributions Table
<b>S.7.4(3)(a)</b>	<b>Land</b>	See Definition of ' <i>Land</i> ' in clause 1.1 and Item 1 of the VPA Particulars
<b>S.7.4(3)(b)(i)</b>	<b>Instrument Change</b>	See definition of ' <i>Instrument Change</i> ' in clause 1.1 and Item 3 of the VPA Particulars
<b>S.7.4(3)(b)(ii)</b>	<b>Development</b>	See definition of ' <i>Development</i> ' in clause 1.1 and Item 2 of the VPA Particulars
<b>S.7.4(3)(c)</b>	<b>Details of Developer's Provision</b>	See Development Contributions Table
<b>S.7.4(3)(d)</b>	<b>Whether s7.11, s7.12 and Subdivision 4 of Division 7.1 of the Act Apply to the Development</b>	See clauses 8.1, 8.3 and 8.3 and Item 7.a, 7.c and 7.d of the VPA Particulars
<b>S.7.4(3)(e)</b>	<b>Whether benefits under Deed are or are not to be taken into consideration in determining a Development</b>	See clause 8.2 and Item 7.b of the VPA Particulars

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Score Rise Pty Ltd**

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	<b>Contribution under s7.11</b>	
<b>S.7.4(3)(f)</b>	<b>Mechanism for the Resolution of Disputes</b>	See Part 3
<b>S.7.4(3)(g)</b>	<b>Enforcement of the Agreement by a Suitable Means in the Event of Breach by the Developer</b>	See Part 4 and Items 8–9 of the VPA Particulars
<b>S.7.4 (10)</b>	<b>Conformity of Agreement with Act, Environmental Planning Instruments, &amp; Development Consents Applying to the Land</b>	Yes
<b>S.7.5</b>	<b>Public Notice &amp; Public Inspection of Draft Agreement</b>	Yes
<b>S.7.6</b>	<b>Registration</b>	See Part 5
<b>S.6.15(1)(d)</b>	<b>If the Development involves the subdivision of land, does this Agreement impose requirements that are required to be complied with before a subdivision certificate is issued?</b>	No, the Development Contribution is required to be made prior to the issue of any Subdivision Works Certificate See Development Contributions Table



**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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**Table 2 – Provisions of Regulation**

<b>Regulation Provision</b>	<b>Requirement</b>	<b>Compliance</b>
<b>Environmental Planning and Assessment Regulation 2021</b>		
<b>S.203(1)</b>	<b>Form &amp; Subject-Matter</b>	Yes
<b>S.203(7)</b>	<b>Secretary's Practice Note</b>	Yes
<b>S.204</b>	<b>Public Notice &amp; Public Inspection of Draft Agreement</b>	Yes
<b>S.205</b>	<b>Explanatory Note</b>	See Appendix
<b>Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021</b>		
<b>Ss.21, 34</b>	<b>If the Development involves building work or subdivision work, does the Agreement specify requirements that are required to be complied with before a construction certificate or subdivision works certificate for the work is issued?</b>	Yes, see Development Contributions Table

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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## Parties

**Council**                    **Upper Hunter Shire Council** ABN 17 261 839 740 of 135  
 Liverpool Street Scone NSW 2337

**Developer**                **Scone Rise Pty Ltd** ABN 41 658 033 820 of Level 1, 6-10  
 O'Connell Street Sydney NSW 2000

## Background

- A The Developer applied for and the Council granted the Applicable Development Consent.
- B The Developer has offered (by its Letter of Offer dated 27 June 2024) to make a monetary contribution toward the construction costs of a road realignment and concrete causeway on the Council owned road reserve adjacent to the frontage of the Land on Barton Street.
- C The Applicable Development Consent is conditional upon the Developer entering into a planning agreement in accordance with its Letter of Offer.

## Operative provisions

### Part 1 - Preliminary

#### 1 Definitions & Interpretation

##### Definitions

- 1.1 In this Deed, the words and phrases appearing in Column 1 of the following table have the meaning set out in Column 2 of that table corresponding to those words or phrases except in so far as the context or subject-matter otherwise indicates or requires:

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**



**Table**

<b>Column 1</b>	<b>Column 2</b>
<b>Word or phrase</b>	<b>Meaning</b>
<b>Act</b>	means the <i>Environmental Planning and Assessment Act 1979</i> (NSW).
<b>Applicable Development Consent</b>	means the development consent specified or described in Item 5 of the VPA Particulars or granted in respect of the Development.
<b>Approval</b>	includes approval, consent, licence, permission or the like.
<b>Claim</b>	includes a claim, demand, remedy, suit, injury, damage, loss, Cost, liability, action, proceeding or right of action.
<b>Construction Certificate</b>	has the same meaning as in the Act.
<b>Cost</b>	means a cost, charge, expense, outgoing, payment, fee and other expenditure of any nature.
<b>CPI</b>	means the ' <i>Consumer Price Index – Sydney All Groups</i> ' published by the Australian Bureau of Statistics.
<b>Deed</b>	means this Deed and includes any schedules, annexures and appendices to this Deed.
<b>Development</b>	means the development specified or described in Item 2 of the VPA Particulars.
<b>Development Application</b>	means the development application within the meaning of the Act specified or described in Item 4.a of the VPA Particulars.
<b>Development Contribution</b>	means the dedication of land free of cost, a monetary contribution, the provision of any other material public benefit including but not limited to the provision of Works, or any combination of them.
<b>Development Contributions Table</b>	means the table contained in Schedule 2.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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<b>Dispute</b>	means a dispute or difference between the Parties under or in relation to this Deed.
<b>Final Lot</b>	means a lot created in the Development for separate residential occupation and disposition or a lot of a kind or created for a purpose that is otherwise agreed by the Parties, not being a lot created by a subdivision of the Land: <ul style="list-style-type: none"> <li>(a) that is to be dedicated or otherwise transferred to the Council, or</li> <li>(b) on which is situated a dwelling-house that was in existence on the date of this Deed.</li> </ul>
<b>GST</b>	has the same meaning as in the GST Law.
<b>GST Law</b>	has the same meaning as in <i>A New Tax System (Goods and Services Tax) Act 1999</i> (Cth) and any other Act or regulation relating to the imposition or administration of the GST.
<b>Instrument Change</b>	means the change to the environmental planning instrument specified or described in Item 3 of the VPA Particulars.
<b>Item</b>	means a numbered item appearing in the VPA Particulars or the Development Contributions Table.
<b>Land</b>	means the land specified or described in Item 1 of the VPA Particulars.
<b>Modification Application</b>	means the application to modify the Applicable Development Consent specified or described in Item 4.b of the VPA Particulars.
<b>N/A</b>	means Not Applicable
<b>Occupation Certificate</b>	has the same meaning as in the Act.
<b>Party</b>	means a party to this Deed.
<b>Regulation</b>	means the <i>Environmental Planning and Assessment Regulation 2021</i> (NSW).
<b>Section 7.11 Contribution</b>	means a monetary contribution payable to the Council under s7.11 of the Act pursuant to the Applicable Development Consent.
<b>Stage</b>	means a stage of the Development approved by the Applicable Development Consent or otherwise

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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approved in writing by the Council for the purposes of this Deed.

**Subdivision Certificate** has the same meaning as in the Act.

**Subdivision Works Certificate** has the same meaning as in the Act.

**VPA Particulars** means the information contained in Schedule 1.

**Interpretation**

- 1.2 In the interpretation of this Deed, the following provisions apply unless the context otherwise requires:
- 1.2.1 Headings are inserted for convenience only and do not affect the interpretation of this Deed.
  - 1.2.2 A reference in this Deed to a business day means a day other than a Saturday or Sunday or a public holiday on which banks are open for business generally in Sydney.
  - 1.2.3 If the day on which any act, matter or thing is to be done under this Deed is not a business day, the act, matter or thing must be done on the next business day.
  - 1.2.4 A reference in this Deed to dollars or \$ means Australian dollars and all amounts payable under this Deed are payable in Australian dollars.
  - 1.2.5 A reference in this Deed to a \$ value relating to a Development Contribution is a reference to the value exclusive of GST.
  - 1.2.6 A reference in this Deed to any law, legislation or legislative provision includes any statutory modification, amendment or re-enactment, and any subordinate legislation or regulations issued under that legislation or legislative provision.
  - 1.2.7 A reference in this Deed to any agreement, deed or document is to that agreement, deed or document as amended, novated, supplemented or replaced.
  - 1.2.8 A reference to a clause, part, schedule or attachment is a reference to a clause, part, schedule or attachment of or to this Deed.
  - 1.2.9 An expression importing a natural person includes any company, trust, partnership, joint venture, association, body corporate or governmental agency.
  - 1.2.10 Where a word or phrase is given a defined meaning, another part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning.
  - 1.2.11 A word which denotes the singular denotes the plural, a word which denotes the plural denotes the singular, and a reference to any gender denotes the other genders.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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- 1.2.12 References to the word 'include' or 'including' are to be construed without limitation.
- 1.2.13 A reference to this Deed includes the agreement recorded in this Deed.
- 1.2.14 A reference to a Party to this Deed includes a reference to the employees, agents and contractors of the Party, the Party's successors and assigns.
- 1.2.15 A reference to 'dedicate' or 'dedication' in relation to land is a reference to dedicate or dedication free of cost.
- 1.2.16 Any schedules, appendices and attachments form part of this Deed.
- 1.2.17 Notes appearing in this Deed are operative provisions of this Deed.

## **2 Status of this Deed**

- 2.1 This Deed is a planning agreement within the meaning of s7.4(1) of the Act.

## **3 Commencement**

- 3.1 This Deed commences and has force and effect on and from the date when the Parties have:
  - 3.1.1 both executed the same copy of this Deed, or
  - 3.1.2 each executed separate counterparts of this Deed and exchanged the counterparts.
- 3.2 The Parties are to insert the date when this Deed commences on the front page and on the execution page.

## **4 Application of this Deed**

- 4.1 This Deed applies to the Land and to the Development.

## **5 Warranties**

- 5.1 The Parties warrant to each other that they:
  - 5.1.1 have full capacity to enter into this Deed, and
  - 5.1.2 are able to fully comply with their obligations under this Deed.

## **6 Further agreements**

- 6.1 The Parties may, at any time and from time to time, enter into agreements relating to the subject-matter of this Deed that are not inconsistent with this Deed for the purpose of implementing this Deed.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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## **7 Surrender of right of appeal, etc.**

- 7.1 The Developer is not to commence or maintain, or to cause or procure the commencement or maintenance, of any proceedings in any court or tribunal or similar body appealing against, or questioning the validity of this Deed, or an Approval relating to the Development in so far as the subject-matter of the proceedings relates to this Deed.

## **8 Application of s7.11, s7.12 and Subdivision 4 of Division 7.1 of the Act to the Development**

### **Section 7.11 of the Act**

- 8.1 Item 7.a of the VPA Particulars states whether this Deed excludes (wholly or in part) the application of section 7.11 of the Act to the Development.
- 8.2 If Item 7.a of the VPA Particulars states that this Deed does not wholly exclude the application of section 7.11 of the Act to the Development, Item 7.b of the VPA Particulars states whether the benefits provided by the Developer under this Deed are to be taken into consideration when determining a Development Contribution under section 7.11 relating to the Development.

### **Section 7.12 of the Act**

- 8.3 Item 7.c of the VPA Particulars states whether this Deed excludes (wholly or in part) the application of section 7.11 of the Act to the Development.

### **Subdivision 4 of Division 7.1 of the Act**

- 8.4 Item 7.d of the VPA Particulars states whether this Deed excludes (wholly or in part) the application of Subdivision 4 of Division 7.1 of the Act to the Development.

## **Part 2 – Development Contributions**

### **9 Provision of Development Contributions**

#### **Development Contributions**

- 9.1 The Developer is to make Development Contributions to the Council in accordance with the Development Contributions Table and any other provision of this Deed requiring the Developer to make Development Contributions.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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#### **Application of Development Contributions**

- 9.2 The Council is to apply each Development Contribution made by the Developer under this Deed towards the public purpose for which it is made and otherwise in accordance with this Deed.

### **10 Payment of monetary Development Contributions**

- 10.1 A monetary Development Contribution is made for the purposes of this Deed when the Council receives the full amount of the contribution payable under this Deed in cash or by unendorsed bank cheque or by the deposit by means of electronic funds transfer of cleared funds into a bank account nominated by the Council.

## **Part 3 – Dispute Resolution**

### **11 Dispute Resolution – mediation**

#### **Application of clause**

- 11.1 This clause 11 applies to any Dispute arising in connection with this Deed.

#### **When Dispute arises**

- 11.2 Such a Dispute is taken to arise if one Party gives another Party a notice in writing specifying particulars of the Dispute.

#### **Meeting between Parties**

- 11.3 If a notice is given under clause 11.2, the Parties are to meet within 14 days of the notice in an attempt to resolve the Dispute.

#### **Meditation of Dispute**

- 11.4 If the Dispute is not resolved within a further 28 days, the Parties are to mediate the Dispute in accordance with the Mediation Rules of the Law Society of New South Wales published from time to time and are to request the President of the Law Society to select a mediator.

#### **Exercise of legal rights**

- 11.5 If the Dispute is not resolved by mediation within a further 28 days, or such longer period as may be necessary to allow any mediation process which has been commenced to be completed, then the Parties may exercise their legal rights in relation to the Dispute, including by the commencement of legal proceedings in a court of competent jurisdiction in New South Wales.



**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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**Costs**

- 11.6 Each Party is to bear its own costs arising from or in connection with the appointment of a mediator and the mediation.
- 11.7 The Parties are to share equally the costs of the President, the mediator, and the mediation.

**12 Breach of obligations**

**Notice of breach**

- 12.1 If the Council reasonably considers that the Developer is in breach of any obligation under this Deed, it may give a written notice to the Developer:
- 12.1.1 specifying the nature and extent of the breach,
- 12.1.2 requiring the Developer to:
- (a) Rectify the breach if it reasonably considers it is capable of rectification, or
- (b) pay compensation to the reasonable satisfaction of the Council in lieu of rectifying the breach if it reasonably considers the breach is not capable of rectification,
- 12.1.3 specifying the period within which the breach is to be rectified or compensation paid, being a period that is reasonable in the circumstances.

**Recovery of costs by Council as debt due**

- 12.2 Despite any other provision of this Deed, any costs incurred by the Council in remedying a breach of this Deed may be recovered by the Council as a debt due in a court of competent jurisdiction.
- 12.3 For the purpose of clause 12.2, the Council's costs of remedying a breach the subject of a notice given under clause 12.1 include, but are not limited to:
- 12.3.1 the costs of the Council's employees, agents and contractors reasonably incurred for that purpose,
- 12.3.2 all fees and charges necessarily or reasonably incurred by the Council in remedying the breach, and
- 12.3.3 all legal costs and expenses reasonably incurred by the Council, by reason of the breach.

**Exercise of Council's rights at law or in equity**

- 12.4 Nothing in this clause 12 prevents the Council from exercising any rights it may have at law or in equity in relation to a breach of this Deed by the Developer, including but not limited to seeking relief in an appropriate court.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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### **13 Enforcement in a court of competent jurisdiction**

- 13.1 Without limiting any other provision of this Deed, the Parties may enforce this Deed in any court of competent jurisdiction.
- 13.2 For the avoidance of doubt, nothing in this Deed prevents:
- 13.2.1 a Party from bringing proceedings in the Land and Environment Court to enforce any aspect of this Deed or any matter to which this Deed relates, or
- 13.2.2 the Council from exercising any function under the Act or any other Act or law relating to the enforcement of any aspect of this Deed or any matter to which this Deed relates.

## **Part 5 – Registration & Restriction on Dealings**

### **14 Registration of this Deed**

#### **Application of clause**

- 14.1 This clause 14 applies if Item 9 of the VPA Particulars states that this Deed is to be registered for the purposes of s7.6(1) of the Act.

#### **Documents for registration**

- 14.2 Upon the commencement of this Deed, the Developer is to deliver to the Council:
- 14.2.1 an instrument in registrable form requesting registration of this Deed on the title to the Land duly executed by the registered proprietor of the Land, and
- 14.2.2 the written irrevocable consent of the registered proprietor and each person referred to in s7.6(1) of the Act to that registration.
- 14.3 The Developer is to do such other things as are reasonably necessary to enable lodgement and registration of this Deed to occur electronically through PEXA or another ELNO.

#### **Removing notation from title**

- 14.4 The Parties are to do such things as are reasonably necessary to remove any notation relating to this Deed from the title to the Land:
- 14.4.1 in so far as the part of the Land concerned is a Final Lot,
- 14.4.2 in relation to any other part of the Land, once the Developer has completed its obligations under this Deed to the reasonable satisfaction of the Council or this Deed is terminated or otherwise comes to an end for any other reason.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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## **15 Restriction on dealings**

### **Restriction**

- 15.1 The Developer is not to:
- 15.1.1 sell or transfer the Land, other than a Final Lot, or
  - 15.1.2 assign the Developer's rights or obligations under this Deed, or novate this Deed,
- to any person unless:
- 15.1.3 the Developer has, at no cost to the Council, first procured the execution by the person to whom the Land or part is to be sold or transferred or the Developer's rights or obligations under this Deed are to be assigned or novated, of a deed in favour of the Council on terms reasonably satisfactory to the Council, and
  - 15.1.4 the Council has given written notice to the Developer stating that it reasonably considers that the purchaser, transferee, assignee or novatee, is reasonably capable of performing its obligations under this Deed, and
  - 15.1.5 the Developer is not in breach of this Deed, and
  - 15.1.6 the Council otherwise consents to the transfer, assignment or novation, such consent not to be unreasonably withheld.

### **Continued performance of obligations by Developer**

- 15.2 Subject to clause 15.3, the Developer acknowledges and agrees that it remains liable to fully perform its obligations under this Deed unless and until it has complied with its obligations under clause 15.1.

### **Exclusion from restriction**

- 15.3 Clause 15.1 does not apply in relation to any sale or transfer of the Land if this Deed is registered on the title to the Land at the time of the sale.

## **Part 6 – Indemnities & Insurance**

### **16 Risk**

- 16.1 The Developer performs this Deed at its own risk and its own cost.

### **17 Release**

- 17.1 The Developer releases the Council from any Claim it may have against the Council arising in connection with the performance of the Developer's

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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obligations under this Deed except if, and to the extent that, the Claim arises because of the Council's negligence or default.

## **18 Indemnity**

- 18.1 The Developer indemnifies the Council from and against all Claims that may be sustained, suffered, recovered or made against the Council arising in connection with the performance of the Developer's obligations under this Deed except if, and to the extent that, the Claim arises because of the Council's negligence or default.

## **Part 7 – Other Provisions**

### **19 Review of Deed**

#### **Obligation to review Deed**

- 19.1 The Parties agree to review this Deed if either Party is of the opinion that any change of circumstance has occurred, or is imminent, that materially affects the operation of this Deed.

#### **Review triggers**

- 19.2 For the purposes of clause 19.1, the relevant changes include (but are not limited to) any change to a law that restricts or prohibits or enables the Council or any other planning authority to restrict or prohibit any aspect of the Development.

#### **Duty of Parties**

- 19.3 For the purposes of addressing any matter arising from a review of this Deed referred to in clause 19.1, the Parties are to use all reasonable endeavours to agree on and implement appropriate amendments to this Deed.

#### **Where change of law occurs**

- 19.4 If this Deed becomes illegal, unenforceable or invalid as a result of any change to a law, the Parties agree to do all things necessary to ensure that an enforceable agreement of the same or similar effect to this Deed is entered into.

#### **No Dispute**

- 19.5 A failure by a Party to agree to take action requested by the other Party as a consequence of a review referred to in clause 19.1 (but not 19.4) is not a Dispute for the purposes of this Deed and is not a breach of this Deed.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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## **20 Notices**

- 20.1 Any notice, consent, information, application or request that is to or may be given or made to a Party under this Deed is only given or made if it is in writing and sent in one of the following ways:
- 20.1.1 delivered or posted to that Party at its address set out in Item 10 or 11 of the VPA Particulars, or
  - 20.1.2 emailed to that Party at its email address set out in Item 10 or 11 of the VPA Particulars.
- 20.2 If a Party gives the other Party 3 business days' notice of a change of its address or email, any notice, consent, information, application or request is only given or made by that other Party if it is delivered, posted or emailed to the latest address.
- 20.3 Any notice, consent, information, application or request is to be treated as given or made if it is:
- 20.3.1 delivered, when it is left at the relevant address,
  - 20.3.2 sent by post, 2 business days after it is posted, or
  - 20.3.3 sent by email and the sender does not receive a delivery failure message from the sender's internet service provider within a period of 24 hours of the email being sent.
- 20.4 If any notice, consent, information, application or request is delivered, or an error free transmission report in relation to it is received, on a day that is not a business day, or if on a business day, after 5pm on that day in the place of the Party to whom it is sent, it is to be treated as having been given or made at the beginning of the next business day.

## **21 Approvals and Consent**

- 21.1 Except as otherwise set out in this Deed, and subject to any statutory obligations, a Party may give or withhold an approval or consent to be given under this Deed in that Party's absolute discretion and subject to any conditions determined by the Party.
- 21.2 A Party is not obliged to give its reasons for giving or withholding consent or for giving consent subject to conditions.

## **22 Costs of this Deed**

### **Costs of Deed**

- 22.1 The Developer is to pay to the Council the Council's costs not exceeding the amount specified in Item 12 of the VPA Particulars in relation to preparing, negotiating, executing and stamping this Deed, and any document related to this Deed within 7 days of a written demand by the Council for such payment.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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#### **Enforcement costs**

- 22.2 The Council may serve a notice in writing on the Developer (**'Enforcement Cost Notice'**) requiring the Developer to pay all or any reasonable costs and expenses incurred by the Council in connection with:
- 22.2.1 investigating a non-compliance by the Developer with this Deed, and
  - 22.2.2 enforcing compliance by the Developer with this Deed.
- 22.3 For the avoidance of doubt, the costs and expenses referred to in clause 22.2 may include the costs or expenses incurred by the Council relating to the preparation or serving of the Enforcement Cost Notice.
- 22.4 An Enforcement Cost Notice is to specify the amount required to be paid to the Council by the Developer and the date by which the amount is to be paid.
- 22.5 The Council may recover any unpaid costs and expenses specified in an Enforcement Cost Notice as a debt in a court of competent jurisdiction.

#### **No dispute**

- 22.6 Part 3 of this Deed does not apply anything done by the Council and any requirement imposed on the Developer by the Council in accordance with this clause 22.

### **23 Entire Deed**

- 23.1 This Deed contains everything to which the Parties have agreed in relation to the matters it deals with.
- 23.2 No Party can rely on an earlier document, or anything said or done by another Party, or by a director, officer, agent or employee of that Party, before this Deed was executed, except as permitted by law.

### **24 Further Acts**

- 24.1 Each Party must promptly execute all documents and do all things that another Party from time to time reasonably requests to effect, perfect or complete this Deed and all transactions incidental to it.

### **25 Governing Law and Jurisdiction**

- 25.1 This Deed is governed by the law of New South Wales.
- 25.2 The Parties submit to the non-exclusive jurisdiction of its courts and courts of appeal from them.
- 25.3 The Parties are not to object to the exercise of jurisdiction by those courts on any basis.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
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## **26 Joint and Individual Liability and Benefits**

- 26.1 Except as otherwise set out in this Deed:
- 26.1.1 any agreement, covenant, representation or warranty under this Deed by 2 or more persons binds them jointly and each of them individually, and
  - 26.1.2 any benefit in favour of 2 or more persons is for the benefit of them jointly and each of them individually.

## **27 No Fetter**

- 27.1 Nothing in this Deed shall be construed as requiring Council to do anything that would cause it to be in breach of any of its obligations at law, and without limitation, nothing shall be construed as limiting or fettering in any way the exercise of any statutory discretion or duty.

## **28 Illegality**

- 28.1 If this Deed or any part of it becomes illegal, unenforceable or invalid as a result of any change to a law, the Parties are to co-operate and do all things necessary to ensure that an enforceable agreement of the same or similar effect to this Deed is entered into.

## **29 Severability**

- 29.1 If a clause or part of a clause of this Deed can be read in a way that makes it illegal, unenforceable or invalid, but can also be read in a way that makes it legal, enforceable and valid, it must be read in the latter way.
- 29.2 If any clause or part of a clause is illegal, unenforceable or invalid, that clause or part is to be treated as removed from this Deed, but the rest of this Deed is not affected.

## **30 Amendment**

- 30.1 No amendment of this Deed will be of any force or effect unless it is in writing and signed by the Parties to this Deed in accordance with section 203 of the Regulation.

## **31 Waiver**

- 31.1 The fact that a Party fails to do, or delays in doing, something the Party is entitled to do under this Deed, does not amount to a waiver of any obligation of, or breach of obligation by, another Party.
- 31.2 A waiver by a Party is only effective if it:

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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- 31.2.1 is in writing,
- 31.2.2 is addressed to the Party whose obligation or breach of obligation is the subject of the waiver,
- 31.2.3 specifies the obligation or breach of obligation the subject of the waiver and the conditions, if any, of the waiver,
- 31.2.4 is signed and dated by the Party giving the waiver.
- 31.3 Without limitation, a waiver may be expressed to be conditional on the happening of an event, including the doing of a thing by the Party to whom the waiver is given.
- 31.4 A waiver by a Party is only effective in relation to the particular obligation or breach in respect of which it is given, and is not to be taken as an implied waiver of any other obligation or breach or as an implied waiver of that obligation or breach in relation to any other occasion.
- 31.5 For the purposes of this Deed, an obligation or breach of obligation the subject of a waiver is taken not to have been imposed on, or required to be complied with by, the Party to whom the waiver is given.

## **32 GST**

- 32.1 In this clause:
  - Adjustment Note, Consideration, GST, GST Group, Margin Scheme, Money, Supply and Tax Invoice** have the meaning given by the GST Law.
  - GST Amount** means in relation to a Taxable Supply the amount of GST payable in respect of the Taxable Supply.
  - GST Law** has the meaning given by the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).
  - Input Tax Credit** has the meaning given by the GST Law and a reference to an Input Tax Credit entitlement of a party includes an Input Tax Credit for an acquisition made by that party but to which another member of the same GST Group is entitled under the GST Law.
  - Taxable Supply** has the meaning given by the GST Law excluding (except where expressly agreed otherwise) a supply in respect of which the supplier chooses to apply the Margin Scheme in working out the amount of GST on that supply.
- 32.2 Subject to clause 32.4, if GST is payable on a Taxable Supply made under, by reference to or in connection with this Deed, the Party providing the Consideration for that Taxable Supply must also pay the GST Amount as additional Consideration.
- 32.3 Clause 32.2 does not apply to the extent that the Consideration for the Taxable Supply is expressly stated in this Deed to be GST inclusive.
- 32.4 No additional amount shall be payable by the Council under clause 32.2 unless, and only to the extent that, the Council (acting reasonably and in accordance with the GST Law) determines that it is entitled to an Input Tax Credit for its acquisition of the Taxable Supply giving rise to the liability to pay GST.



**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
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- 32.5 If there are Supplies for Consideration which is not Consideration expressed as an amount of Money under this Deed by one Party to the other Party that are not subject to Division 82 of the *A New Tax System (Goods and Services Tax) Act 1999*, the Parties agree:
- 32.5.1 to negotiate in good faith to agree the GST inclusive market value of those Supplies prior to issuing Tax Invoices in respect of those Supplies;
- 32.5.2 that any amounts payable by the Parties in accordance with clause 32.2 (as limited by clause 32.4) to each other in respect of those Supplies will be set off against each other to the extent that they are equivalent in amount.
- 32.6 No payment of any amount pursuant to this clause 32, and no payment of the GST Amount where the Consideration for the Taxable Supply is expressly agreed to be GST inclusive, is required until the supplier has provided a Tax Invoice or Adjustment Note as the case may be to the recipient.
- 32.7 Any reference in the calculation of Consideration or of any indemnity, reimbursement or similar amount to a cost, expense or other liability incurred by a party, must exclude the amount of any Input Tax Credit entitlement of that party in relation to the relevant cost, expense or other liability.
- 32.8 This clause continues to apply after expiration or termination of this Deed.

### **33 Explanatory Note**

- 33.1 The Appendix contains the Explanatory Note relating to this Deed required by section 205 of the Regulation.
- 33.2 Pursuant to section 205 of the Regulation, the Parties agree that the Explanatory Note is not to be used to assist in construing this Deed.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
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## Schedule 1: VPA Particulars

(Clause 1.1)

Item	Details
1. <b>Land</b>	Lot 30 DP 1280096
2. <b>Development</b>	The development approved by the Applicable Development Consent being a 1 into 92 lot subdivision
3. <b>Instrument Change</b>	N/A
4. <b>Application:</b>	
<b>a. Development Application</b>	DA 230/2022
<b>b. Modification Application</b>	N/A
5. <b>Applicable Development Consent</b>	Development Consent granted to the Development Application DA 230/2022 by the Council on 29 July 2024
6. <b>Applicable Plan:</b>	
<b>a. Applicable Contributions Plan</b>	N/A
<b>b. Applicable DSP</b>	N/A
7. <b>Application of the following provisions of the Act to the Development:</b>	
<b>a. Section 7.11</b>	Does not exclude
<b>b. Consideration of benefits</b>	Not to be considered
<b>c. Section 7.12</b>	Does not exclude
<b>d. Subdivision 4 of Division 7.1</b>	Not excluded
8. <b>Registration of this Deed</b>	Yes

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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<p><b>9. Council Contact for Notices</b></p>	<p><b>Postal Address:</b> 135 Liverpool Street Scone. PO Box 208</p> <p><b>Email:</b> Council@upperhunter.nsw.gov.au</p> <p><b>Telephone:</b> 65401100</p> <p><b>Representative:</b> Paul Smith</p>
<p><b>10. Developer Contact for Notices</b></p>	<p><b>Postal Address:</b> [insert]</p> <p><b>Email:</b> [REDACTED]</p> <p><b>Telephone:</b> [REDACTED]</p> <p><b>Representative:</b> Nick Perks</p>
<p><b>11. Costs of Deed</b></p>	<p>\$3,500.00</p>

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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## Schedule 2: Development Contributions Table

<b>COLUMN 1</b> <b>Item No / Details</b>	<b>COLUMN 2</b> <b>Public Purpose</b>	<b>COLUMN 3</b> <b>Timing</b>
1. Monetary Contribution of \$289,528	Works to realign and upgrade Barton Street	Prior to a Subdivision Works Certificate for Stage 1 of the Subdivision

**Barton Street Road Realignment and Causeway  
Upper Hunter Shire Council  
Scone Rise Pty Ltd**

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## Execution

**Executed as a Deed**

**Dated:**

\*[Drafting Note. Delete execution clauses below not required.]

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**Executed by the COUNCIL** pursuant to a resolution passed at a duly convened meeting held on [Drafting Note. Insert Date]:

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
General Manager

---

### Executed by the COUNCIL:

\_\_\_\_\_  
General Manager

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Name

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**



**Executed by the COUNCIL** by its attorney, [Drafting Note. Insert Name], pursuant to Power of Attorney Registered Book [Drafting Note. Insert number] No. [Drafting Note. Insert number]:

\_\_\_\_\_  
Attorney

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Name

**Executed by the Developer** in accordance with s127(1) of the Corporations Act (Cth) 2001

\_\_\_\_\_  
Director

\_\_\_\_\_  
Director / Secretary

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Score Rise Pty Ltd**

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## Appendix: Explanatory Note

(Clause 33)

*Environmental Planning and Assessment Regulation 2021*

(Section 205)

### Draft Planning Agreement

Under s7.4 of the *Environmental Planning and Assessment Act 1979*

### Parties

**Council**                      **Upper Hunter Shire Council** ABN 17 261 839 740 of  
135 Liverpool Street Scone NSW 2337

**Developer**                    **Score Rise Pty Ltd** ABN 41 658 033 820 of Level 1, 6-10  
O'Connell Street Sydney NSW 2000

### Description of the Land to which the Draft Planning Agreement Applies

The Draft Planning Agreement applies to the Land, being Lot 30 in DP 1280096 known as 38 Barton Street, Scone.

### Description of Proposed Development/Instrument Change

The Development approved by Development Consent DA 230/2022 granted by the Council on 29 July 2024, being a 1 into 92 lot subdivision of Lot 30 DP 1280096, 38 Barton Street, Scone.

### Description of Development Contributions

A monetary contribution of \$289,528 toward the construction costs of a road realignment and concrete causeway on the Council owned road reserve on Barton Street adjacent to the frontage of Lot 30 DP 1280096.

**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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## **Summary of Objectives, Nature and Effect of the Draft Planning Agreement**

### **Objectives of Draft Planning Agreement**

The objective of the Planning Agreement is to record the terms of the offer made by the Developer to provide the Development Contributions in relation to the Development.

### **Nature and Effect of the of Draft Planning Agreement**

The Draft Planning Agreement does not exclude the application of section 7.11 of the Act to the Development.

The Draft Planning Agreement does not exclude section 7.12 (local infrastructure contributions) or Division 7.1, Subdivision 4 of the Act to the Development.

The benefits under the Draft Planning Agreement are not to be taken into consideration when determining a development contribution under section 7.11 of the Act in relation to the Development.

The Draft Planning Agreement provides for registration of the agreement on title to the Land.

The Draft Planning Agreement also includes provisions regarding:

- the resolution of disputes arising under the agreement through independent mediation, and
- the Developer paying Council's reasonable legal costs associated with the agreement.

## **Assessment of the Merits of the Draft Planning Agreement**

### **The Planning Purposes Served by the Draft Planning Agreement**

The Development will result in increased traffic volumes on Barton Street.

The proposed works to the road reserve adjacent to the Land on Barton Street are not included in the Work Schedules of the Council's *Section 94 Development Contributions Plan 2017* which applies to the Development.

The Draft Planning Agreement provides a mechanism for the Developer to contribute to the construction costs of the works.

### **How the Draft Planning Agreement Promotes the Public Interest**

The Draft Planning Agreement promotes the public interest by ensuring that appropriate contributions are made towards providing road infrastructure to satisfy needs arising from the Development.



**Barton Street Road Realignment and Causeway**  
**Upper Hunter Shire Council**  
**Scone Rise Pty Ltd**

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The Development Contribution will fund upgrades to the Barton Street road reserve.

**Assessment of the positive or negative impact of the Draft Planning Agreement on the public or relevant section of the public**

The Draft Planning Agreement does not cause any negative impacts on the community and is not adverse to the public interest.

**Whether the Draft Planning Agreement Conforms with the Planning Authority's Capital Works Program**

The Draft Planning Agreement is consistent with Council's Capital Works Program which includes the scheduled upgrade of the Barton Street causeway in 2025/26 and 2026/27 financial years.

**Whether the Draft Planning Agreement specifies that certain requirements must be complied with before a construction certificate, occupation certificate or subdivision certificate is issued**

The Draft Planning Agreement provides that the Development Contribution must be made prior to the issue of any Subdivision Works Certificate which is required for the carrying out of subdivision works under DA 230/2022.

Singleton,  
Muswellbrook  
Shire, and  
Upper Hunter  
Shire Councils

# Singleton, Muswellbrook, and Upper Hunter **REGIONAL DROUGHT RESILIENCE PLAN**



Australian Government  
Department of Agriculture,  
Fisheries and Forestry



Future  
Drought  
Fund



Jointly funded by the Australian Government and the  
NSW Government under the Future Drought Fund



Baiame Cave, Wonnarua/Wanaruah Country, Milbrodale (provided by Singleton Council, 2021)

## ACKNOWLEDGMENT OF COUNTRY

Ngayan marrungku paran wiyen Wanarruwa, mirumalikan para ani parraykupa, ngatan ngayan marrung wiyen Ngarrakay paranpa yurakaykal ngatan pangaykal.

We acknowledge the Wonnarua people, traditional keepers of this land, and we pay respects to their Elders, past and present.

## CONTACT



**SINGLETON COUNCIL**  
 12-14 Queen Street, Singleton  
 PO Box 314, Singleton NSW 2330  
**T** 02 6578 7290  
**E** council@singleton.nsw.gov.au  
**W** singleton.nsw.gov.au



**MUSWELLBROOK SHIRE COUNCIL**  
 Campbell's Corner  
 60-82 Bridge Street, Muswellbrook  
 PO Box 122, Muswellbrook NSW 2333  
**T** 02 6549 3700  
**E** council@muswellbrook.nsw.gov.au  
**W** muswellbrook.nsw.gov.au



**UPPER HUNTER SHIRE COUNCIL**  
 136 Liverpool Street, Scone  
 34-40 Vennacher Street, Merriwa  
 47 Mayne Street, Murrurundi  
 PO Box 208, Scone NSW 2337  
**T** 02 6540 1100  
**E** council@upperhunter.nsw.gov.au  
**W** upperhunter.nsw.gov.au

# CONTENTS.

Acknowledgement of Country	2	<b>06 A PLAN FOR DROUGHT RESILIENCE</b>	<b>45</b>
Contact	2	Action Strategic Alignment	48
Letters from the Mayors	4	Action Pathways	52
Glossary of Key Terms	6	How to Read an Action	55
Key Abbreviations	9	Action A: Comprehensive Drought Communication Plan	56
<b>01 ABOUT THIS PLAN</b>	<b>10</b>	Action B: First Nations Land Management Practices	60
A Plan for Drought Resilience	10	Action C: Supporting Our Community Groups	62
Regional Drought Resilience Planning Objectives and Purpose	12	Action D: Ensuring Economic Prosperity as Our Region Transitions	66
<b>02 ABOUT THIS REGIONAL DROUGHT RESILIENCE PLAN</b>	<b>14</b>	Action E: Forward Planning and Helping Our Water Users Prepare for Dry Times	68
The Process Overview	16	<b>07 MONITORING, EVALUATION, AND LEARNING</b>	<b>72</b>
What Brought Us Here?	18	Achieving Our Goals	72
Key Inputs	20	Assessing Our Progress	73
Our Partners	22	Our Roles and Responsibilities	73
<b>03 OUR REGION</b>	<b>26</b>	Data Collection Tools	74
<b>04 DROUGHT AND OUR REGION</b>	<b>30</b>	Reporting and Accountability Obligations	79
What is Drought?	30	Risks in Effectively Delivering Our MEL Framework and RDR Plan	80
Drought Monitoring in NSW	31	References	82
Stages of Drought	31		
A Long History of Droughts	32		
What Will The Future Look Like?	37		
<b>05 DROUGHT RESILIENCE CHALLENGES AND OPPORTUNITIES</b>	<b>40</b>		
Challenges	41		
Opportunities	43		

## LETTERS FROM THE MAYORS



History shows that drought is a recurring event in Australia, but it's almost impossible to predict when—and for how long—it will occur. Worse still, the impacts of climate change have injected further difficulties to being able to predict the severity of all weather events, including droughts. That's why the Regional Drought Resilience Plan is so important. This collaborative approach with our neighbours in Muswellbrook and Upper Hunter LGAs aims to better equip our communities, our economies and our environment to bounce back quicker and stronger – especially when times are tough.

I acknowledge and thank everyone who has been involved in the development of this Plan, and look forward to the positive outcomes that will benefit our communities.

**Cr Sue Moore**

*Mayor of Singleton*



Our Upper Hunter Region has a remarkable landscape.

As weather conditions become more unpredictable with climate change, it is imperative that our Region is well-equipped with the right tools and information regarding all facets of extreme weather management.

The Regional Drought Resilience Plan is a forward thinking and collaborative approach for future environmental threats. As a direct result of the investment in this strategic drought plan, Upper Hunter communities will become stronger, allowing them the opportunity to flourish during these hardships and not rely solely upon our collective tenacity of spirit and resilience.

I wish to express my gratitude to those who contributed to this initiative. These collective insights and shared experiences will further safeguard us from the emotional, economic and environmental uncertainty that comes with such extremities that are commonplace within our country.

**Cr Steve Reynolds**

*Mayor of Muswellbrook*



As a farmer, I still remember the toll the 2017 - 2020 drought took on all of us—not just on our land, but on our minds as well. Water carting, dry dams, the constant uncertainty—it wasn't just a devastating time; it was mentally exhausting. That's why this Drought Resilience Plan is so important to me. Working alongside Singleton and Muswellbrook councils, we've crafted a plan that draws from our own hard-earned experiences, not just to protect our farms, but to safeguard our well-being. I'm deeply grateful to our community for sharing your wisdom. It's your insights that make this Plan truly effective, ensuring that when the next challenge comes, we'll be ready—stronger, more resilient, and united.

**Cr Maurice Collison**

*Mayor of Upper Hunter*



## GLOSSARY OF KEY TERMS

### Absorptive capacity

The ability of individuals and groups to continue without adapting or changing their behaviour in response to environmental and socioeconomic changes.<sup>1</sup>

### Adaptation

Adjustment or modification in natural and/or human systems in response to actual or expected shocks and stresses to moderate harm, reduce vulnerability and/or exploit beneficial opportunities.<sup>2</sup>

### Adaptive capacity

The ability of individuals and groups to adjust and respond to environmental and socioeconomic changes.<sup>2</sup>

### Adaptive governance

Adaptive governance is defined by a focus on decentralised decision-making structures and procedurally rational policy, supported by intensive natural and social science. Decentralised decision-making structures allow a large and complex problem like global climate change to be factored into many smaller problems, each more tractable for policy and scientific purposes.<sup>3</sup>

### Blue-sky thinking

Brainstorming without limits or being grounded in reality, opening possibilities for creativity without practical constraints.

### Co-design

The process of partnership, using participatory methods to develop project delivery and agree objectives and needs. A process of working together utilising generative and explorative processes.

### Community-centred

An approach where the local and regional community work together to identify goals that are important to them, develop and implement plans to achieve those goals, and create collaborative relationships internally and with external actors - all while building on community strengths and local leadership.

### Drought

Drought in general means acute water shortage. Drought is a prolonged, abnormally dry period when the amount of available water is insufficient to meet our normal use.<sup>4</sup>

Drought in the Singleton, Muswellbrook, and Upper Hunter Region means a recurrent natural phenomenon compounding existing stresses causing extensive impacts. Drought is fully acknowledged across all three LGAs.

### Drought resilience

Drought resilience is a measure of a system's ability to absorb, respond and recover to drought risks. In the Singleton, Muswellbrook, and Upper Hunter Region, drought resilience means community resilience and empowerment to respond to and prepare for environmental, social, and economic challenges during times of drought.

### Economic resilience

The ability of the economy to absorb the economic impact of shocks and stressors without changing the economic status or outcomes.<sup>2</sup>

### Environmental resilience

The ability of the natural environment to cope with a diverse range of shocks and stressors while maintaining natural processes and ecosystem services.<sup>2</sup>

### Exposure

The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected.<sup>5</sup>

### Feedback loop

Feedback loop is a process where the output of a system is fed back into the input, resulting in circular cause and effect that can either amplify or diminish the effects of droughts. It is used to visualise the interdependencies and interrelations of causes and effects across different systems.<sup>6</sup>

### Green drought

Green droughts refer to instances when vegetation retains a green top, but growth is stunted, and soil moisture stress has been impacted for over a month.<sup>7</sup> During a green drought there is insufficient rainfall to saturate the soil to generate runoff into rivers and dams.

### Governance

Governance is the structures and processes by which individuals, groups and agencies in a society share power and make decisions. It can be formally or informally institutionalised.<sup>2</sup>

### Hunter Region

Throughout this report, the word Region (capitalised) is used to refer to Singleton, Muswellbrook, and Upper Hunter Council areas. There is no set definition of what constitutes the Hunter, Greater Hunter, Lower Hunter, Upper Hunter, Hunter Valley, or Hunter region. Different entities use these terms, often interchangeably and often without clearly delineating exactly which LGAs they are referring to. Where this Plan references statistics, we have used the terminology from the originating report.

### Intervention options

Alternative or complementary actions, projects, programs, policies, initiatives, and investments that are planned to bring about change in the system.<sup>8</sup>

### Local knowledge

Local knowledge and First Nations knowledge incorporate elements of lived experience within a landscape, bearing witness to the operation of systems. It includes aspects of people, landscape, culture – how people interact with surroundings and as part of communities and processes.

### Maintain

Maintaining actions, or maintaining the system, refers to efforts to keep the Region (as it currently exists) the same i.e., maintaining the status quo.

### Megadrought

Drought persisting multi-years and of extreme severity. Drought lasting decades.<sup>9</sup>

### Modify

Efforts to modify the system. It refers to efforts working to adapt part of the system to meet newly defined goals.

### Planetary boundary

The planetary boundaries concept, developed by Stockholm Resilience Centre, Stockholm University, presents nine boundaries for safe operation, where humanity can develop and thrive for future generations. These include climate change, novel entities, biosphere integrity, land-system change, freshwater change, biogeochemical flows, ocean acidification, atmospheric aerosol loading, and stratospheric ozone depletion. All boundaries are assessed, and six of the nine boundaries have been crossed. Crossing boundaries means increasing the risk of generating large-scale abrupt or irreversible environmental changes.<sup>10</sup>

### Resilience

The ability of a system to absorb a disturbance and reorganise, so as to maintain the existing functions, structure and feedback.<sup>11</sup> Also see general resilience, specified resilience, economic resilience, environmental resilience, and social resilience. For the Region, community emphasised the need for proactive resilience, with the ability to "ride the wave" and "roll with the punches" to find a way to cope with financial, environmental, and social challenges arising during drought.

### Risk

The potential for adverse consequences for human or ecological systems, recognising the diversity of values and objectives associated with such systems.<sup>5</sup>

### Shock

Sudden, short-term events that threaten a city (or region). Examples include major storms, floods, bush fires, heatwaves, disease outbreaks, terrorism, and cyber-attacks.<sup>12</sup>

### Social resilience

The ability of the human society to cope with a diverse range of shocks and stressors while maintaining existing social and community functions.<sup>2</sup>

### Stressor

An event that occurs gradually over a timeframe that causes an adverse effect, e.g., drought.<sup>2</sup>

### Systems

The interaction of processes, networks, and inter-dependencies across a complex 'whole'.

**The Region**

Singleton, Muswellbrook, and Upper Hunter Region. “The Region”, “Our Region” or variations of such have been used interchangeably throughout the Plan.

**Theory of change**

Refers to theories, causal mechanisms and assumptions that explain how and why outcomes and impacts will be achieved through use, implementation and production of proposed inputs, activities, and outputs.<sup>8</sup>

**Threshold**

The point at which a change in a level or amount a controlling variable causes a system to shift to a qualitatively different regime. Also referred to as a tipping point.<sup>13</sup>

**Trends**

Major global or regional influences that have driven change in the past and are expected to shape change into the future.<sup>14</sup>

**Transform**

Transformative actions aim to change the existing system, creating a new reality (also see Transformation).

**Transformation**

The process of radically changing or building a new system with different structure, functions, feedback, and identity.<sup>2</sup>

**Trigger point**

A pre-agreed situation or event, that when met, activates a management intervention. Trigger points are usually defined in the planning phase.<sup>2</sup>

**Triple bottom line**

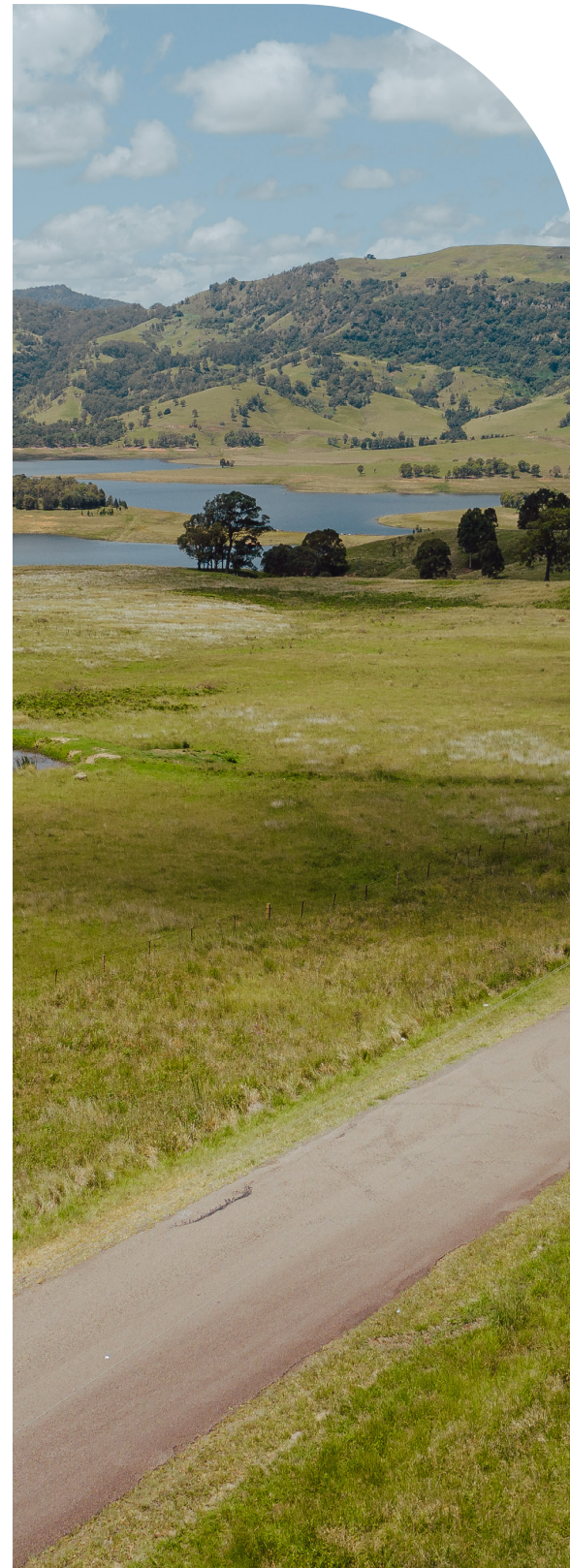
A concept traditionally derived from accounting framework that demands organisations to meet the goal of sustainable development. This approach seeks to equally focus on economic, social, and environmental outcomes.

**Value add**

The difference between the value of goods and the cost of materials or supplies used to produce them.<sup>15</sup>

**Vulnerability**

The propensity or predisposition to be adversely affected.<sup>5</sup>



**KEY ABBREVIATIONS**

<b>°C</b>	Degrees Celsius	<b>LGA</b>	Local Government Area
<b>ABS</b>	Australian Bureau of Statistics	<b>MEL</b>	Monitoring, Evaluation, and Learning
<b>BoM</b>	Bureau of Meteorology	<b>NEMA</b>	National Emergency Management Agency
<b>CBA</b>	Cost Benefit Analysis	<b>NSW</b>	New South Wales
<b>CBD</b>	Central Business District	<b>PCG</b>	Project Control Group
<b>CDI</b>	Combined Drought Indicator	<b>RAMHP</b>	Rural Adversity Mental Health Program
<b>COVID-19</b>	Coronavirus disease 2019	<b>RAPTA</b>	Resilience, Adaptation Pathways, and Transformation Assessment
<b>CSIRO</b>	Commonwealth Scientific and Industrial Research Organisation	<b>RCP</b>	Representative Concentration Pathway
<b>CSPs</b>	Community Strategic Plans	<b>RDR Plan</b>	Regional Drought Resilience Plan
<b>DPIRD</b>	Department of Primary Industries and Regional Development	<b>RDRP</b>	Regional Drought Resilience Planning
<b>FDF</b>	Future Drought Fund	<b>REDS</b>	Regional Economic Development Strategies
<b>FIFO</b>	Fly-In Fly-Out	<b>SDGs</b>	Sustainable Development Goals
<b>GL</b>	Gigalitre(s)	<b>SROI</b>	Social Return on Investment
<b>GRP</b>	Gross Regional Product	<b>UFW</b>	Unaccounted For Water
<b>GVA</b>	Gross Value Added	<b>UHWUA</b>	Upper Hunter Water Utilities Alliance
<b>IP&amp;R</b>	Integrated Planning and Reporting		
<b>kL</b>	Kilolitre(s)		
<b>kL/y</b>	Kilolitre(s) per year		
<b>LALC</b>	Local Aboriginal Land Council		



01

# ABOUT THIS PLAN.

## A PLAN FOR DROUGHT RESILIENCE

Drought is a recurring event in Australia. Australian history is punctuated by periods of economic, social, and environmental hardship associated with these extended dry conditions, with the most severe living on in our memories through their names: the Federation drought, the Millennium drought, the 2019/20 drought to name a few.

Droughts are difficult to predict with limited warning as to duration, severity, or extent. It becomes more challenging to simulate future drought conditions due to a lack of understanding around the contributing physical factors, including those of climate change. Their slow, chronic nature often means that by the time a drought is identified, the opportunity for implementing change (implementing mitigation or adaptation measures) is lost.

### Droughts are expensive: the 2019/20 drought cost \$5.5 billion across NSW.<sup>16</sup>

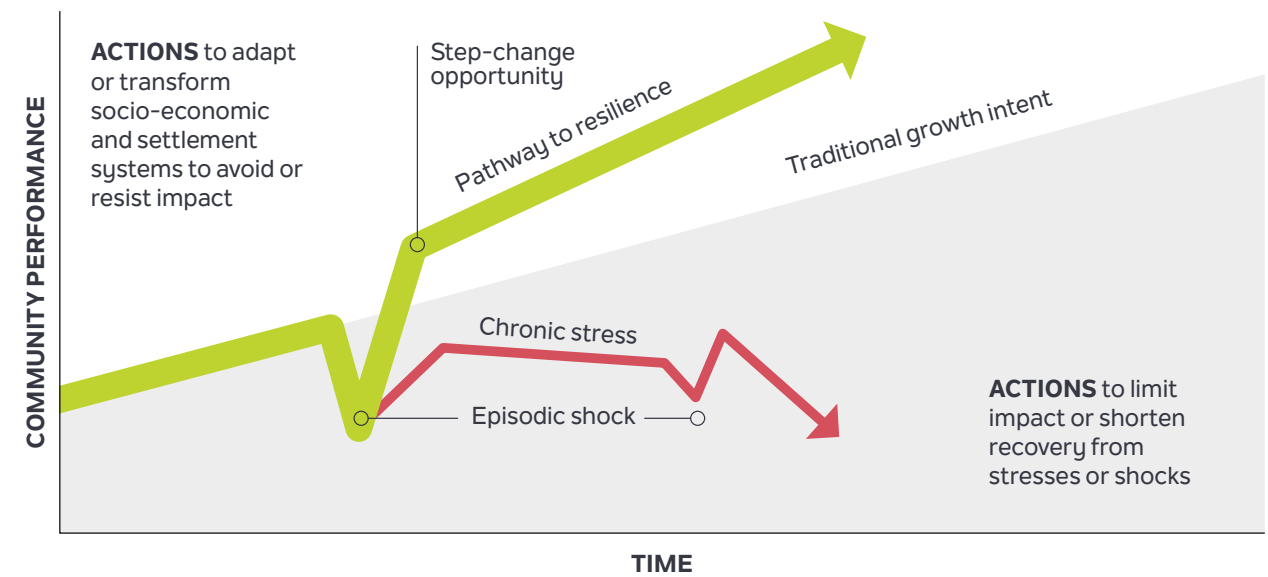
Farmers bear the brunt of drought impacts. Roughly 1 in 2 farmers have thoughts of suicide or self-harm, and sadly, farming suicide rates are 59% higher than the general population.<sup>17</sup> Often drought is accompanied by bushfires, which compound the impacts. When a drought breaks, often with flooding rains, the impacts linger for months, years or decades. Whilst traditionally viewed as an issue confined to communities dominated by farming and agribusiness, drought impacts ripple across numerous sectors: from water supply to regional towns, to the viability of local businesses, the amenity of recreational spaces, to our environmental and cultural heritage.

The cyclical nature of droughts suggests we will continue to face drought in the future. No two drought events are the same, and droughts in the future are projected to be harsher, longer, and more frequent. The most effective response to this rising risk is to strive for greater drought resilience.

We want to avoid chronic stresses and episodic shocks degrading the performance of our community, our economy, and our natural environment.

Figure 1.1 illustrates how the identification and implementation of actions which maintain, modify, or transform our Region, can limit the impacts of drought, and position ourselves to bounce back quicker and stronger. This can be achieved by building sustainable and diverse regional economies, thriving local communities, and enhancing our natural environments.

Figure 1.1: Improving our prosperity through resilience (adapted from Fiksel, 2016)





## REGIONAL DROUGHT RESILIENCE PLANNING OBJECTIVES AND PURPOSE

The Commonwealth Government's *Future Drought Fund* seeks to enhance the public good by building drought resilience in Australia's agricultural sector, the agricultural landscape, and communities. The Fund is intended to deliver against three inter-connected strategic priorities:

- **economic resilience** for an innovative and profitable agricultural sector
- **environmental resilience** for sustainable and improved functioning of farming landscapes
- **social resilience** for resourceful and adaptable communities.

One of the five focus areas of the *Future Drought Fund* is the *Regional Drought Resilience Planning (RDRP)* program. The objectives of the RDRP process are to:

- 01** Grow the **self-reliance and performance** of the agricultural sector
- 02** Improve the **natural capital of agricultural landscapes** for better environmental outcomes
- 03** Strengthen the **wellbeing and social capital** of rural, regional, and remote communities

In NSW, this program is jointly funded by the NSW Government and provides support for local governments to work together in a regional consortium to deliver a Regional Drought Resilience Plan (RDR Plan) unique to the regional community.

Resilient regional communities are supported through a variety of other NSW government policies and plans, including their Regional Economic Development Strategies (REDS), the Department of Planning and Environment's Regional Plans, and NSW State and Regional Water Strategies (see *Table 6.2* in Section 6 for further linkages between this RDR Plan and other strategies).

### Key tools which support the delivery of the NSW Government's vision for drought-ready regions include:

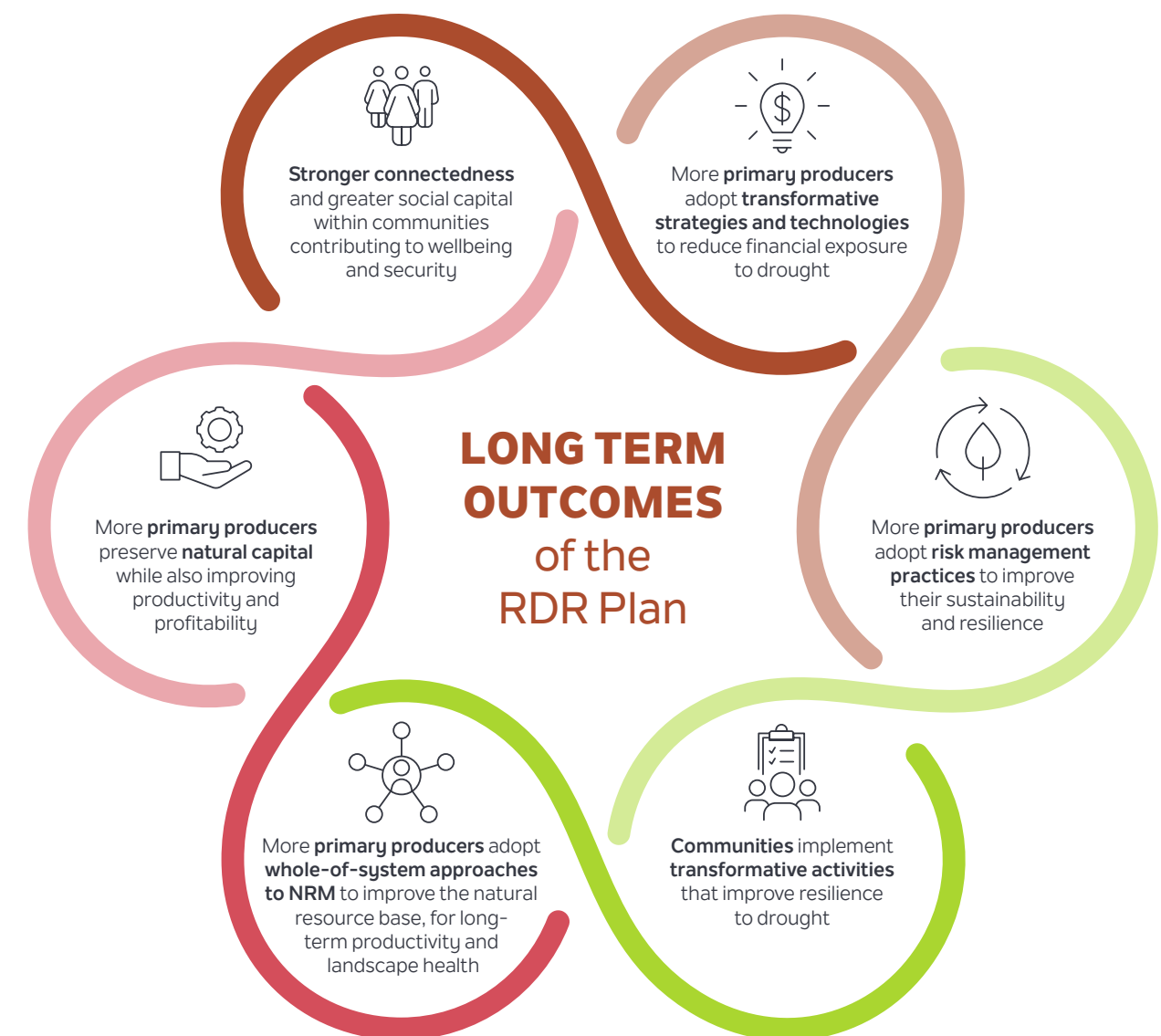
- Australian Government's *Drought Resilience Adoption and Innovation Hubs* (including University of Southern Queensland, and Charles Sturt University)
- NSW Government Department of Primary Industries *DroughtHub* which is an online drought assistance and information portal for NSW primary producers, and their *Climate Vulnerability Assessments* for horticulture and viticulture, broadacre cropping, forestry, extensive livestock, marine fisheries, and biosecurity risks.

- NSW Government *AdaptNSW* website, to inform and empower communities, businesses, households, and government to adapt to climate change.

These community based RDR Plans are designed to complement and build on the actions of the Federal and State governments. The purpose of the RDR Plans is shown in *Figure 1.2*.

*Figure 1.2: Long term outcomes of the RDR Plan*

Source: Department of Agriculture, Water and the Environment. 2020.<sup>18</sup>





# 02



## ABOUT THIS REGIONAL DROUGHT RESILIENCE PLAN.

This Regional Drought Resilience Plan (RDR Plan) is a collaboration between Singleton Council, Muswellbrook Shire Council, and the Upper Hunter Shire Council. The Plan is designed to strengthen the capacities of local residents, communities, institutions, businesses, and systems to withstand the economic, social, and environmental challenges arising during periods of drought.

By building resilience across the Region, we will ensure our community can grow and prosper before, during, and after dry times. By investing in resilience early, our Region reaps the benefits in good times, whilst becoming better adapted to the challenging experiences of drought in the future.



This RDR Plan is **community owned and driven**, co-designed with community leaders, residents, local businesses, and organisations. The input of local knowledge has provided the plan with a strong foundation, a shared vision, allowed for targeted efforts leveraging existing and new opportunities to strengthen community resilience.

# THE PROCESS OVERVIEW



## Project Inception

### Establishment of the PCG

Department of Primary Industries and Regional Development

Singleton Council

Muswellbrook Shire Council

Upper Hunter Shire Council



## Resilience Assessment

### Regional Snapshot

Demographics and Social Factors

Key industries and Economic Factors

Our Natural Environment

Local Plans & Strategies

### A "What-If" Analysis

Previous Drought Impacts

Resilience Challenges

Resilience Opportunities

### System Diagnostics

Future Drought Projections

Future Changes within the Region



## Stakeholder Engagement

### Stakeholder Mapping

### Stakeholder and Community Engagement Plan

### Community Input

'Have Your Say' Survey

Street Talks

Targeted Interviews

Community Workshops

Action Detailing Consultation

### Outcomes

Drought Impacts (Systems Diagnostics) including Challenges and Opportunities

A Brighter Future (Strengths and Existing Services)

Vision and Ideas for the Future including an Action Long List (Our Preferred Options)



## Synthesis and Reporting

### Actions

Economy

Environmental

Social

Cross-Cutting

(Our Preferred Options)

### Action Pathway

### Monitoring, Evaluation and Learning (How We Will Learn)

# WHAT BROUGHT US HERE?

## Project Inception

To collaborate across our Region, the Project Control Group (PCG) was formed, allowing for easy communication across Singleton, Muswellbrook, and Upper Hunter Councils.

## Resilience Assessment

### Regional snapshot

Key features of the Region were identified and assessed via desktop research and community engagement activities. This provided a baseline understanding for the Region and its resilience to drought events. Information accessed for this process was taken from public sources including Bureau of Meteorology (BoM), REMPLAN, IDCommunity, Census and other Australian Bureau of Statistics data, council data, and pertinent local/regional plans. These sources were utilised to consider the economic, social, and environmental resilience of our Region and fed into the technical desktop study (the Resilience Assessment) which considered community strengths and resilience before, during, and following past drought events.

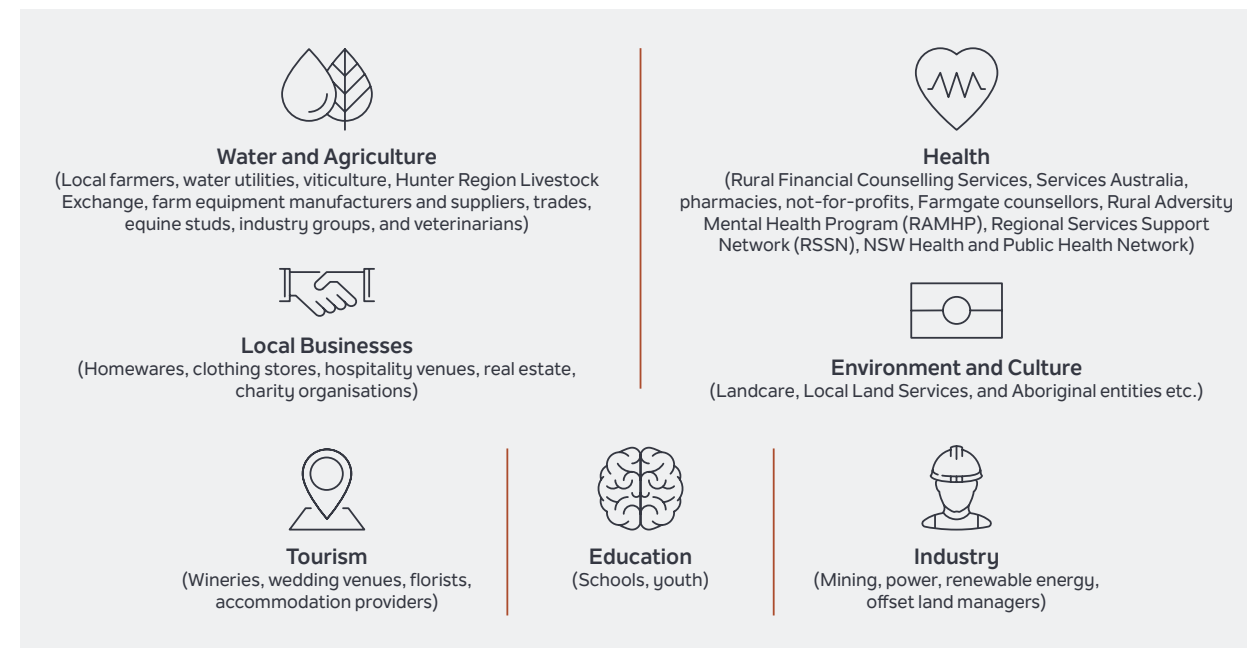
### A "what-if" analysis

The technical Resilience Assessment considered future drought scenarios for various climate conditions. Climate data for rainfall, hot days, heat stress, bushfire, evaporation, soil moisture, runoff, and erosion was obtained primarily from My Climate View, supplemented by data from the BoM and CSIRO. Data was obtained for an RCP 8.5 scenario for the Region. Historical and future climate projections for the year 2070 were considered, exploring what future drought and climate conditions could look like for the Region if climate changes were realised. By considering a possible "what-if" and the "worst case scenario", our Region was able to explore plausible future pathways and measures to reduce stress and potential impacts.

## Stakeholder Engagement

### Community input

Our communities were the primary drivers of this Plan. This RDR Plan exists to serve our communities and our Region. To ensure engagement represented a diverse array of voices, a stakeholder mapping exercise was undertaken to identify individuals, groups, and businesses impacted by drought to ensure a collaborative approach to drought resilience was adopted. Using local knowledge, council databases, research, and PCG input, a long list of key stakeholders were identified, contacted, and recruited. These include, but were not limited to stakeholders in the following sectors:



Through three rounds of community consultation guiding the RDR Plan development, surveys and workshops allowed residents to identify existing challenges and opportunities arising from drought. For full details of engagement, see Figure 2.1. Community input directly shaped the Resilience Assessment, and vice versa, with research findings from the Resilience Assessment guiding engagement approaches and consultation activities. Desktop research informing the regional snapshot, history of drought and its impact, and the Resilience Assessment as a whole were used during engagement activities, guiding discussion questions and information presented to the public prior to activity commencement. This included drought projections and technical content that was easily consumable for our community.

### Integrated learning and vision setting

Local voices and insights shared during consultation provided the opportunity to capture a shared community vision. Community input was refined through two rounds of engagement to understand past drought impacts, establish a list of current actions and initiatives, identify existing support services and systems which provide effective assistance, and detail the Regional challenges arising from drought. These lessons learned were captured within the Resilience Assessment and Stakeholder Engagement Outcome Support Report. Feedback was also provided to the Project Control Group (PCG) consisting of representatives from the NSW Government Department of Primary Industries and Regional Development (DPIRD), council representatives, and independent consultants, ensuring councils and DPIRD were aware of the desired vision for the Region and existing day-to-day challenges community faces during dry times.

After integrating various priorities and ideas across community, businesses, council members and council staff, key organisations, and service providers, the proposed vision for the Plan was tested with workshop participants in a third round of consultation. Identified goals for the Plan which aligned with Regional values and sentiment shared during previous workshops were identified and considered further within the Resilience Assessment and workshops. This step was critical in ensuring community input was woven throughout all aspects of the RDR Plan.

## Regional Drought Resilience Plan

### System diagnostics

From the future drought scenarios obtained during the Resilience Assessment, drought impacts to critical systems within the Region were considered. Combining local knowledge and scientific data, a clear understanding of historic impacts to social, economic, environmental, and governance spheres were obtained. From this, we were able to consider the implications for water capture/storage, grazing industries, wine and tourism, people, and community. A systems map was created based on local knowledge and research accumulated around the Regional challenges and opportunities to bolster drought resilience. The interlinkages across these areas were considered, with drought impacts acknowledged as never occurring alone.

### A brighter future?

Ideas for a more drought-resilient future were considered by the community to imagine a better future. Ideas were canvassed during workshops, surveys, and phone interviews, with creativity and 'blue-sky' thinking encouraged. Particular focus on actions with maintaining, modifying, or transformative capability was encouraged to shift from the reactionary to preparation and pre-emptive approaches. As a locally-led Plan, sentiment from the Have Your Say Survey to "keep actions doable" were also acknowledged. Opportunities and possible future actions were captured within an action longlist. Key themes and ideas raised by the community across the Region were then utilised to group this longlist. Key themes included education and communication, financial and business, agriculture, social connection, environmental, governance, and industrial involvement. Ideas ranged from the development of a comprehensive drought communications plan, to bus tours across wine/tourism and grazing/equine/

cropping enterprises to allow for peer-to-peer learning. These potential actions were filtered into environmental, economic, and social pillars, to allow for prioritisation where long-lasting change was possible.

### Our preferred options

Following development of the action long list, further engagement was undertaken with collaborators and key stakeholders/community representatives to discuss potential action owners and prioritised actions based on community need, efficacy, whether the actions were implementable, or had the potential to build upon existing activities. This process was guided by councils and PCG representatives, resulting in a priority action list. Tangible and purposeful actions were further developed with self-identified action owners through a detailed process and development of implementation steps for each action. Round three engagement conversations allowed relevant stakeholders to map their vision for each action, encouraging ground truthing and practical steps to implement the action and empower stakeholder buy-in. By prioritising actions that addressed identified resilience challenges, which were canvassed during prior workshops, the project ensured each action was set up for success, creating a level of accountability.

### How we will learn

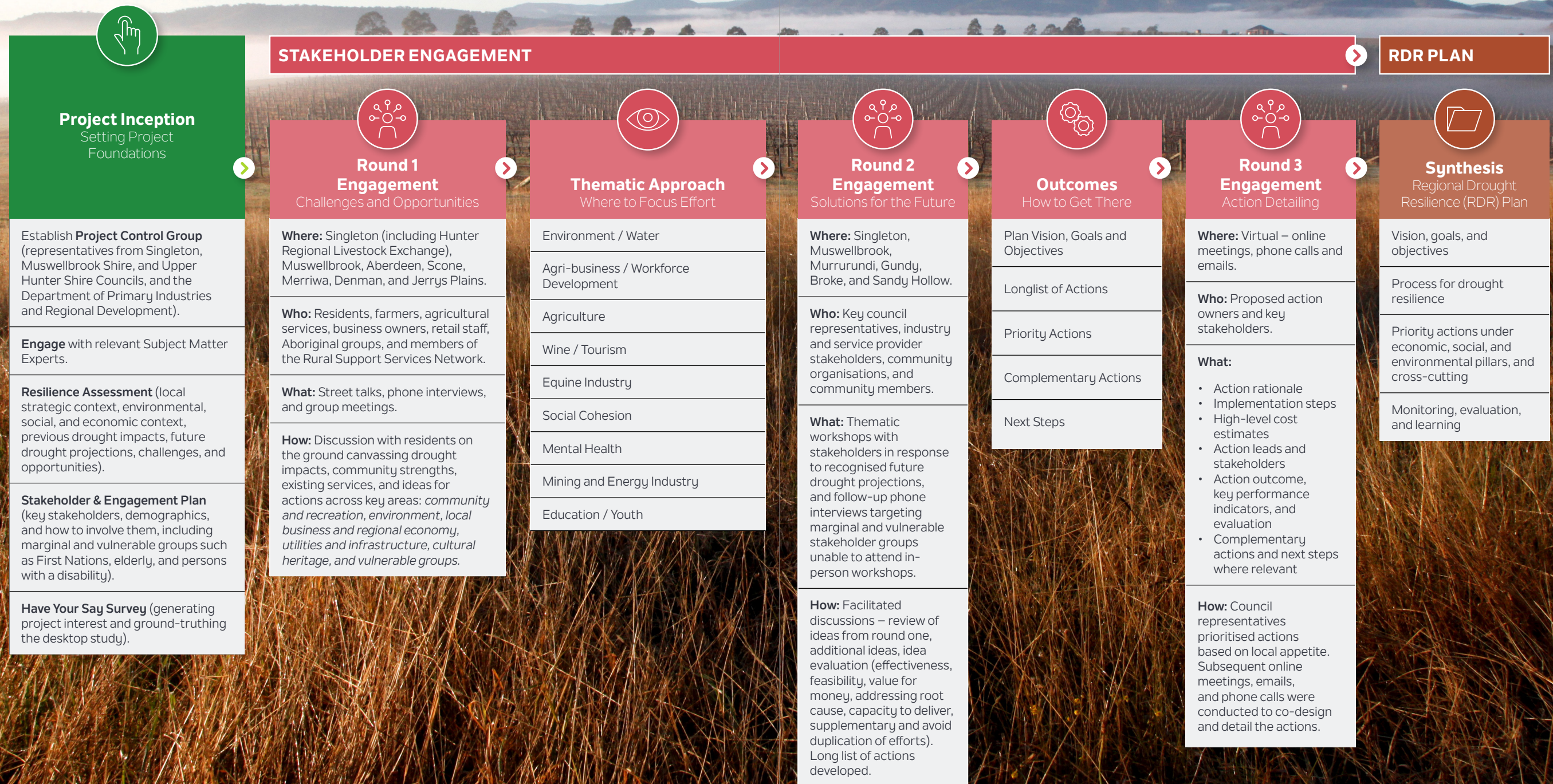
Monitoring and evaluation processes were developed in alignment with desired action outcomes to ensure continuous innovation and learning is fostered through intentional capacity building and education. This provides us with accountability and knowledge relating to our uncertain future. Together, this Plan will enable our community to concretely achieve a stronger drought resilient Region.

# KEY INPUTS

Existing bodies of work span governance and leadership, agriculture, and equine sectors, social, economic, infrastructure, environmental, climate change, demographics, and other scientific studies and research. This Plan sits alongside numerous policies and strategic plans ranging from local council level through to the international stage. These documents provided key inputs within the RDR Plan.

Priority actions of this Plan have been mapped against these key inputs, demonstrating the strategic alignment of each action. Further mapping against the Sustainable Development Goals (SDGs) and Sendai Framework for Disaster Risk Reduction have been included to reflect the global scale of drought resilience work. This is further elaborated in the Action Strategic Alignment section.

Table 2.1: The Drought Resilience Planning Process in Detail





## OUR PARTNERS

This RDR Plan was developed in partnership between Singleton, Muswellbrook Shire, and Upper Hunter Shire Councils, made possible by joint funding from the Australian Government’s Future Drought Fund and the NSW Government. As a community-centred Plan, a wide range of stakeholders and residents across our Region was engaged via a thoughtful and dedicated engagement approach.

This occurred via interviews, phone calls, surveys, workshops, street talks, and one-on-one meetings. From the community engagement, the mining and energy sectors were identified as facilitating community resilience through employment and economic spend within the Region. However, the same sectors are also a challenge for agriculture, wine, and equine sectors through competition for land and water. As the Region prepares for the inevitable transition away from mining due to Australia’s low carbon economy trend, this RDR Plan considers opportunity for renewables, establishing a diversified economy and skilled workforce.

Figure 2.1 shows the breadth of engagement conducted for this Plan. Community members, business representatives, NSW Government representatives, service providers, charitable organisations, agriculturalists, and the three councils were engaged to ensure this RDR Plan was truly community-centred and focused.

Many shared stories of hardship, comradery, and community spirit in spite of drought. Visions for a more resilient future were readily considered.

While the focal point of this engagement was targeted workshops, interviews, and surveys, informal engagement was also conducted with a broad cross-section of the community, providing critical insights into local challenges, opportunities, and possible solutions or interventions to improve drought resilience of the Region. From the economic powerhouse of the Hunter Valley (Singleton and Muswellbrook) to the Upper Hunter, stakeholders included graziers, health providers, support services, local business owners, community organisations, and more. Participants shared their personal drought journey, whilst also sharing the drought journey of the Region. Figure 2.1 provides an overview of the community and stakeholder engagement undertaken, with the Engagement Outcome Summary Report providing a detailed overview of the engagement outcomes.

Figure 2.1: Engagement outcomes



\* Note, given surveys were completed anonymously, it cannot be determined the level of overlap that arose between survey participants and participation in the other engagement activities.

\*\* Note, some participants attended multiple workshops.

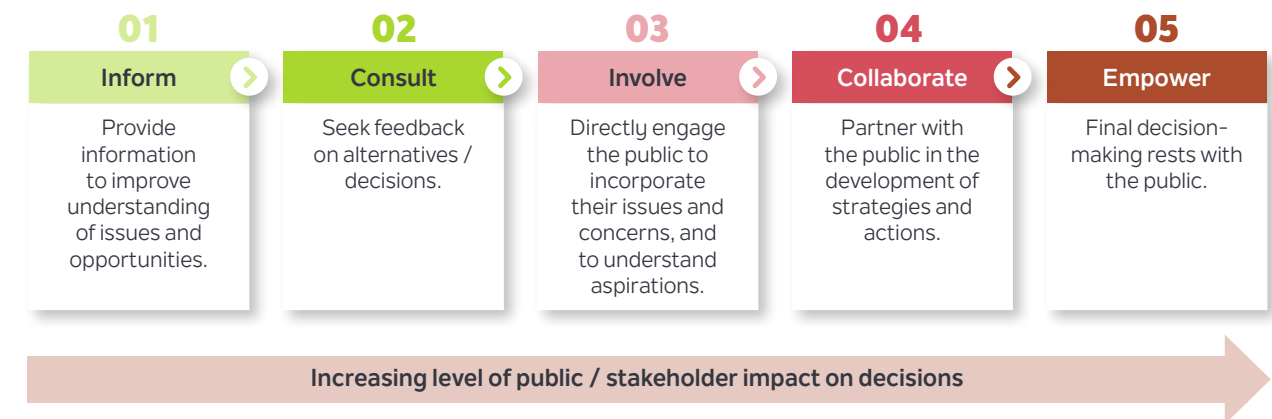


The objectives of our engagement from the outset were:



Our engagement strategy for the RDR Plan was also informed by the internationally recognised approach developed by the IAP2 depicted in *Figure 2.2*. As far as reasonably practicable, the intention was to engage with community and stakeholders at the collaborate and empower end of the spectrum.

Figure 2.2: IAP2 Framework.



Source: International Association for Public Participation



# 03



## OUR REGION.

Termed the ‘economic powerhouse’, Singleton, Muswellbrook, and the Upper Hunter LGAs are responsible for the supply of 60% of New South Wales’s (NSW) energy and resources, as well as providing these outputs into the global economy.<sup>20</sup> Situated 90 minutes from Newcastle, and 3 hours from Sydney, our Region offers a unique blend of scenic country living and community spirit, with big city benefits.<sup>21</sup>

Our Region boasts history, grazing, wines, dining, mines, equine, cropping, and defence. Across the three LGAs, our Region, shown in *Figure 3.1*, spans a total area of approximately 16,393.8km<sup>2</sup> and is home to 55,163 people.

Resting on the traditional lands of the Wanaruah, Wonnarua people, our region has a rich cultural past. Wanaruah, Wonnarua People’s rich history is steeped in the land before time. Our Dreamtime – a sacred time during which the Hunter Valley was shaped by the great spirit Baiame.

In the Beginning, everything was sleeping, sleeping in chasms of eternity until the All Father Creation Spirit Baiame awakened and breathed life into the whole Valley creating mountains, plains, rivers, and all living beings.

**“The land held the key to life’s secrets. Man was bestowed with the wisdom to read the land, uncovering explanations for existence in every rock, tree, and creek. He did not possess the land; rather, the land possessed him. To know the land was to know life.”**<sup>22</sup>

For Aboriginal people, the land embodies both a spiritual essence and a vital source for sustaining life. They nurtured this existence through a profound respect for the land, employing what we now recognise as traditional land management practices.

This sustainable approach provided a consistent source of nourishment while minimising environmental impact. By reestablishing and implementing these traditional land care methods, we can foster improved outcomes for both the environment and future generations.

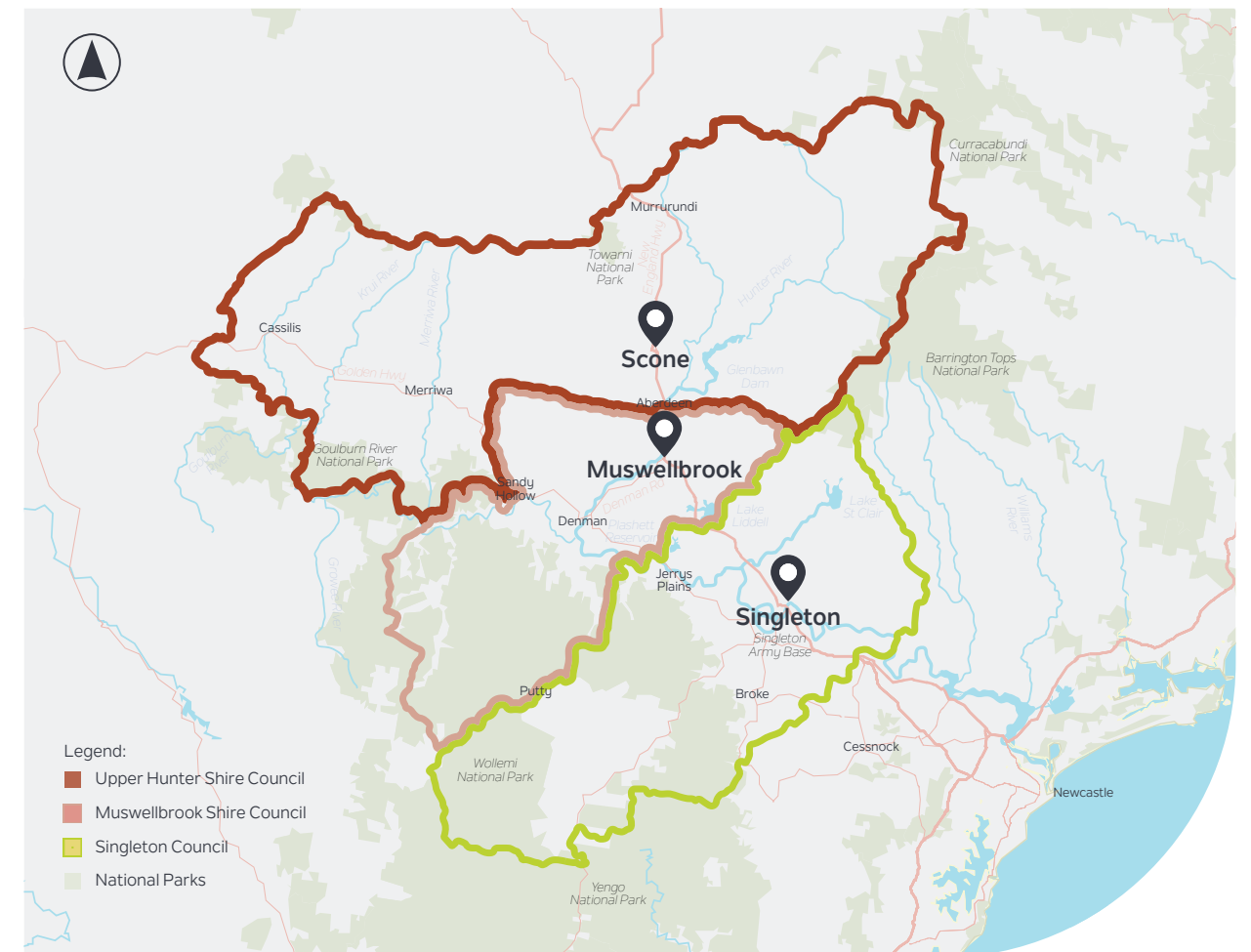
As of 2024, **4,931** people



living in our Region identify as Aboriginal and/or Torres Strait Islander, representing 9% of our population.

Figure 3.1: Singleton, Muswellbrook, and Upper Hunter Regional Map


Source: WSP. 2024



The coloured lines represent the LGA boundaries.

Table 3.1: Key Statistics

Source: ABS Census 2021; unless otherwise stated

Demographic / Statistic	Singleton	Muswellbrook	Upper Hunter	NSW Average
 <b>Traditional Owners</b>	Wanaruah, Wonnarua	Wanaruah, Wonnarua	Wanaruah, Wonnarua	-
 <b>Major Towns and Localities</b>	Singleton, Broke, Bulga, Jerrys Plains, Branxton (partly)	Muswellbrook, Denman, Sandy Hollow	Scone, Aberdeen, Murrurundi, Merriwa, Gundy, Cassilis	-
 <b>Area</b> <sup>23,24,25</sup>	4,892.8 km <sup>2</sup>	3,404.9 km <sup>2</sup>	8,096.1 km <sup>2</sup>	-
 <b>Population</b>	24,577	16,357	14,229	-
 <b>Population 65 years or older</b>	14.4%	15.0%	21.2%	17.7%
 <b>Population growth by 2036</b>	28,600 <sup>26</sup>	20,320 <sup>27</sup>	16,184 <sup>28</sup>	-
 <b>Identify as Aboriginal or Torres Strait Islander</b>	8.3%	11.7%	7.0%	3.4%
 <b>Median weekly income (personal)</b>	\$819	\$769	\$751	\$813
 <b>Percentage of households with a weekly income less than \$650</b>	15.1%	18.9%	21.3%	16.3%
 <b>Unemployment rate</b>	3.7%	5.1%	3.2%	4.9%
 <b>One or more long-term health conditions</b>	29.4%	31.6%	30.5%	27.0%
 <b>Volunteers</b>	14.7%	12.1%	16.5%	13%

Major industries across the Region

Source: REMPLAN. 2024

Major Industry	Value Added (\$ million)	Jobs Supported
<b>Mining</b>	\$6,875m	10,600
<b>Health care and social assistance</b>	\$217m	2,459
<b>Construction</b>	\$327m	2,435
<b>Agriculture, forestry, and fishing</b>	\$373m	2,410
<b>Retail trade</b>	\$202m	2,216
<b>Education and training</b>	\$222m	1,900
<b>Electricity, gas, water, and waste services</b>	\$619m	1,034
<b>Rental, hiring, and real estate services</b>	\$700m	305

Mining is the dominant employment industry in the Region, with thermal open-cut coal mines and underground mining operations located across the area. Many businesses and residents benefit from the salaries and spending generated by the mines. However, there are also many in the Region who are less well off: approximately 1 in 5 households in our Region has an income below \$650 per week.<sup>29</sup> This creates significant social differences across the Region: those on lower incomes have less capacity to invest in drought resilience with minimal financial bandwidth to withstand economic hardships associated with dry times.

The mining industry operates within close proximity, and sometimes in tension<sup>30</sup> with the Region's town and rural residents and major employers. Muswellbrook Shire's thoroughbred breeding industry extends in an arc from Denman to Sandy Hollow, along Bylong Valley Way to Widden and includes the two largest studs in the southern hemisphere. Bespoke dairy, olive oil, and beef businesses are located within a few minutes' drive from coal mining activities, as are boutique wine and tourism businesses, who attract national and international visitors.

Access to groundwater and Hunter River water is a topic of debate, with different viewpoints expressed across the Region. Only a small proportion of water rights are traded each year<sup>31</sup>, and the prices paid can be beyond the reach of many. As the world seeks to achieve the 2015 Paris Climate Agreement, demand for coal is likely to change in the future. However, opinions differ - some are optimistic about the future and longevity of the coal industry, others note that job losses are likely in the medium-term, whilst others are actively pursuing transition opportunities.<sup>32</sup> Change is

already underway. Some mines are naturally approaching the end of their life, with rehabilitation plans well underway. The 2023 closure of the Liddell Power Station has recently morphed into an opportunity, with a solar panel manufacturing hub announced in 2024.

Generating \$283.35 million in output, tourism is an important regional industry. Visitors are drawn to the wine, gourmet offerings, boutique accommodation, golf, and a plethora of activities and experiences.<sup>33</sup> The health care and social assistance sector pays \$62.19 million in wages and salaries, the highest of any sector in the Upper Hunter. However, this is more reflective of the number of people employed in aged care, health, and other services, rather than these roles having higher salaries for individuals.<sup>34</sup>

The Hunter River is the lifeblood of the Region, providing water to many communities, agricultural enterprises, and industry. Glenbawn Dam and Glenties Creek Dams are our primary water storage reservoir but are also a favourite destination for camping and fishing. The Region is blessed with large tracts of nature, which support camping and hiking opportunities as well as habitat for iconic and endangered species such as the Regent Honeyeater, Swift Parrot, Wollemi Pine, and the Hunter Galaxis. Over 40% of the land in Muswellbrook LGA is National Park.<sup>35</sup> The Upper Hunter is known for being the second largest producer of thoroughbred horses in the world, only behind Kentucky, USA. Meanwhile, Singleton is a mosaic of many different environments, home to a number of Endangered Ecological Communities (EECs) providing habitat for various threatened flora, avifauna, chiroptera, and other mammals.



# 04



## DROUGHT AND OUR REGION.

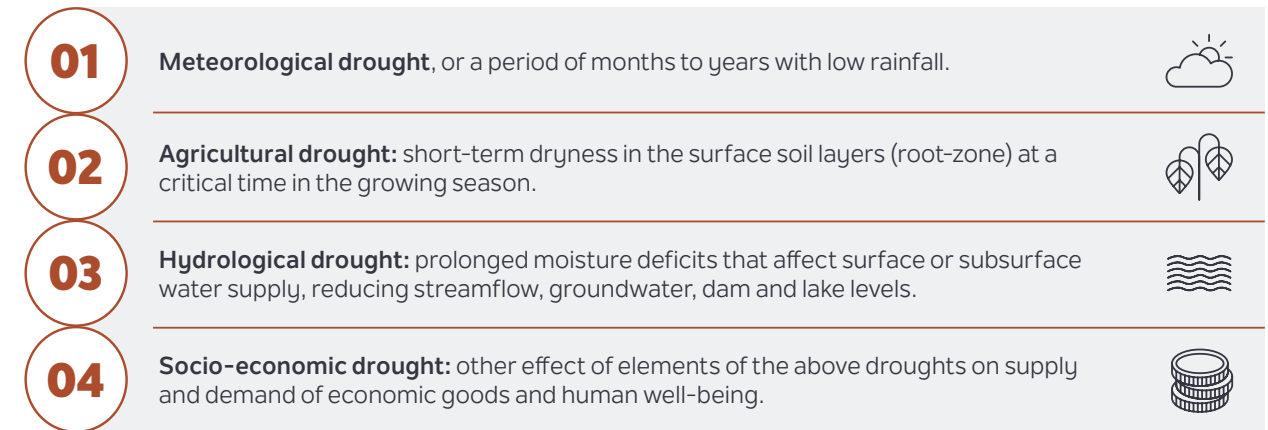
### WHAT IS DROUGHT?

As a land of extremes, Australia has highly variable rainfall records, with periods of extreme rainfall and periods of low rainfall. In simple terms, drought means an acute water shortage and a prolonged, abnormally dry period when the amount of available water is insufficient to meet our normal use.<sup>36</sup>

Edwards et al. (2018) has four definitions of drought, which are meteorological, agricultural, hydrological, and socio-economic (Figure 4.1). It is difficult to determine a start and end, or when the landscape, our people or the economy have recovered.

Droughts can be exacerbated by high temperatures which increase evaporation, low or declining water tables and bushfires. They can last a single season or become a 'megadrought' which may persist for many decades.<sup>37</sup> As for other disasters, they are difficult to predict or compare with differences in seasonality, extent, duration, severity, among other variables all contributing to the drought experience.

Figure 4.1: Types of droughts and their definition<sup>38</sup>



### DROUGHT MONITORING IN NSW

The Enhanced Drought Information System (EDIS) is a publicly available drought monitoring tool that monitors seasonal conditions across NSW. Launched in March 2018, EDIS is used across government and farming stakeholders to build drought risk awareness, emphasise drought preparedness, and improve confidence in drought monitoring and early warning. A key feature of EDIS is the development of the NSW Department of Primary Industries and Regional Development (DPIRD) Combined Drought Indicator (CDI).

The CDI integrates a range of data and model outputs in a framework that is useful for decision makers. It combines meteorological, hydrological, and agricultural definitions of drought (above) using indexes for rainfall, soil and water and plant growth. From these, a fourth index, drought direction, is utilised. EDIS is undergoing redevelopment to provide farmers with world-leading weather and climate data to enable better business decisions.

### STAGES OF DROUGHT

Used together, the indexes of the EDIS indicate the stages of drought, which are used in this Regional Drought Resilience Plan (RDR Plan).

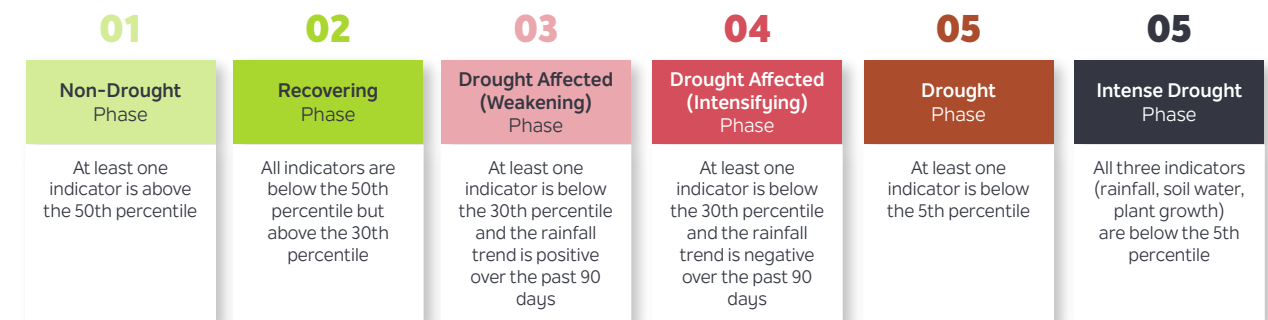
The six stages progress from a non-Drought category where all indicators suggest good conditions for production, to recovery, through to a Drought Affected (weakening or intensifying) category, a Drought category, and into Intense Drought (Figure 4.2).

Complementing the stages is detailed information on:

- A technical and on-the-ground description of typical field conditions.
- A suggested on-farm response.
- A suggested advisory or policy response.

Figure 4.2: Stages of drought in NSW

Source: EDIS



## A LONG HISTORY OF DROUGHTS

### Federation Drought

Known as one of the worst droughts across the country, Australian sheep and cattle farmers faced heavy cost burdens alongside a national wheat crop failure.<sup>39</sup>

### WWII Drought

Major waterways across NSW, Victoria, and South Australia were impacted. Our Region's lifeblood, the Hunter River, stopped flowing in December 1944.<sup>39</sup> Stock was severely impacted with NSW farmers losing over 10 million sheep across the state<sup>40</sup> and hand feeding a common occurrence across our Region.<sup>41</sup>

### Millennium Drought

This drought occurred from 1997 to 2009 in most areas, however, in the Hunter the drought was prolonged until 2014. NSW experienced the lowest rainfall since 1865.<sup>42</sup>

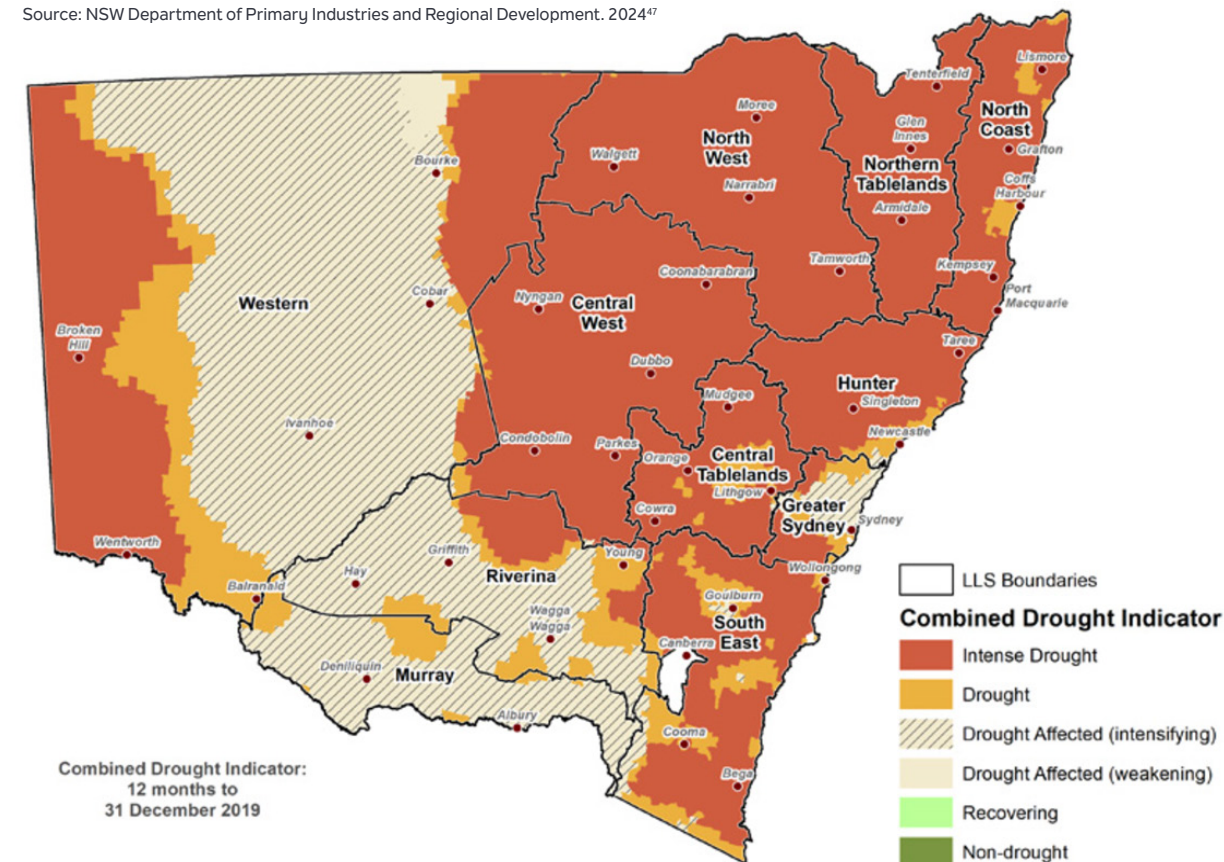
Media reports from the time indicate that the Millennium drought was mainly felt in our Region from 2006 through to 2014. Hunter politicians and locals were calling for the region to be "drought-proof" through infrastructure projects,<sup>43,44</sup> such as the Tillegra Dam, which despite some periods of support, has never eventuated. With dams sitting below 50% for much of this period, water allocations were cut for agriculture, horticulture, viticulture, and industry.<sup>45</sup>

### 2018/19/20 Drought

Described as the "worst drought in our living memory" the conditions were the driest and warmest conditions on record.<sup>46</sup> The drought was widespread covering the majority of the State, as shown *Figure 4.3*. This drought caused many to face significant economic, environmental, and social hardships.

Figure 4.3: NSW Combined Drought Indicator to 31 December 2019

Source: NSW Department of Primary Industries and Regional Development. 2024<sup>47</sup>



"The Upper Hunter is getting half the rain it used to."

### Impacts of drought in our Region

Whilst no two droughts are the same, we know that drought will continue to impact our economy, our community, and our environment.

### Financial and Infrastructure Impacts

In 2013, Singleton's residential water consumption doubled during a period of very low spring rainfall. Whilst our yards are valued for their greenery and as a place to enjoy the outdoors, the downside were higher water bills and talk of 'wasted water'.<sup>48</sup> In contrast, the 2019 drought saw Murrurundi run out of water and some groundwater bores dry up. Water was trucked in daily, at a cost of \$40,000 a month,<sup>49</sup> with residents enduring level 6 water restrictions, 3-minute showers, only two loads of washing a week, and reliance on bottled water for drinking.<sup>50</sup> Kids couldn't even enjoy playing under a sprinkler with their family, friends, and pets.<sup>51</sup> Whilst the new pipeline from Scone and storage tank brought improved water security to Murrurundi, there are many villages and landholders still reliant on tank water. For these residents, water efficiency was and still is a daily necessity. Some landholders pinned their hopes on groundwater to supply their homes and their livestock. Yet there were stories of people spending \$30,000 on water diviners and bore drillers, with no success.<sup>52</sup>

Historically, travelling stock routes have been relied upon for grazing cattle during dry times. However, dry watering points have led to long wait times.<sup>53</sup> Current management arrangements for stock routes further limits their use. A variety of viewpoints on the topic of transport subsidies, charity hay drives, and other forms of government and non-government assistance also exist across the Region. For some landholders, these forms of assistance, no matter how small, were seen as providing extremely beneficial support, financially and emotionally. In contrast, some felt that they were only token gestures, which did little to alleviate the hardships being experienced. Some residents expressed concern that the assistance wasn't necessarily going to those most in need, with a perception that a percentage of recipients were 'gaming the system'. Others believed that the tax rebates, low-interest loans, and grants

were simply propping up enterprises that were otherwise unsustainable. For those with off-farm income, they were often caught in a dilemma. Their day jobs were providing an alternative source of income and potentially a financial buffer from drought, whilst at the same time, preventing them from accessing certain kinds of drought assistance. The diversity of viewpoints highlights the complexity and challenges surrounding provision of drought assistance. For some it is a lifeline that they seek to be available in future droughts and for others it is the opposite.

History has also shown that our Region can be dealt double and even triple blows during and following a drought. In 2007, dairy and cattle farmers along the Hunter River lost feedstock, equipment, fences, and other infrastructure when a flood rounded off a devastating drought.<sup>54</sup> The high cost of production and low milk prices which have coincided with drought conditions are seen by many as being contributing factors to the decline in the dairy industry in our Region. Major droughts often result in an earlier start to the bushfire season, adding an additional worry to landholders' minds throughout spring and summer. In 2019/20 bushfires burnt throughout our Region. Even when the fire danger had passed, the perception that fires were burning nearby kept many tourists away. This was despite the best (and ongoing) efforts of our councils to promote our Region as still being open for business. The latest drought to affect our Region coincided with the COVID-19 pandemic, and was followed by back-to-back disasters – bushfires, then flooding, landslips, and road closures.

Another compounding impact of drought is the deterioration of unsealed roads and the requirement of large quantities of water to maintain them. This leaves councils, particularly the Upper Hunter which has just shy of 1000km of gravel roads, in an unenviable position given that water is precious for our community, but so too is decent road infrastructure. Other organisations have also faced tough decisions brought about by drought conditions. In 2018, the Department of Defence sought to cull about 150 brumbies on the Singleton Army base with dwindling food and water supplies but faced substantial criticism.<sup>55</sup>



### Agricultural Impacts

Pasture underpins much of the agricultural industry in the Region,<sup>56,57</sup> with the species mix, growth, and quality all affected by the amount and timing of rainfall. When there is insufficient rainfall for pasture growth or runoff into farm dams, tough decisions are required on an almost daily basis. Whether to hold onto or sell off stock, where and how to source water for animals and humans alike, where to find fodder, and how much is too much to pay. Hand feeding stock and carting water is labour intensive and time consuming. With many of our rural landholders having day jobs off the farm or working shifts in the mines, this often resulted in a continuous procession of exhausting 12 to 15-hour days. The severity of the last drought meant that many reached the point where they could no longer afford, or no longer find fodder to feed their animals. Then came the added problem of long wait times for the abattoir,<sup>58</sup> or having to pay more on transport and yarding fees than was recouped in the sale.

Stock transport providers also experienced tensions with stock owners when stock was of too poor a condition to be transported. These factors and the timing of pregnant cows or recently born calves, can lead to animal welfare issues. With few viable options, shooting one's animals can be the only option, which brings with it a heavy mental toll. Even those who wanted to sell up and move on did not find the path easy, with real estate agents noting fewer people were buying in the Region.<sup>59</sup>

For others, the financial burden was exceeded by the deep emotional attachment they had with their herd of cattle or the horses they had owned and cared for, more as pets than as livestock. In the equine industry, selling up was often not an option, with bloodlines having taken countless years or decades to refine. Similarly, those with horse agistment businesses went to enormous lengths to keep their operations going, not willing to forgo their customer base. The dry, dusty, and hot conditions can increase the susceptibility of horses to viruses and diseases, reduce fertility, challenge the maintenance of trotting tracks and training venues, and limit the opportunities to safely transport horses to events or other locations.

For the western parts of our Region, around Cassilis, dry conditions can prevent crops being sown, or cause substantial reductions in the harvest which make it difficult to break even. Impacts extend to the wine industry with harvest declines of 50% not uncommon.<sup>45</sup> The harvest period can occur as much as four weeks earlier, and the typically hot conditions associated with drought require careful planning to avoid heat stress amongst harvest staff. The vignerons must adapt their processes to account for changes in the acidity, sugar content, colour, and alcohol content. Limited water is a particular challenge for an industry that relies on the cleanliness of winemaking equipment. The 2019/20 bushfires increased the risk of smoke taint in grapes and ash fall; therefore, crops may not have been harvested or they may have been sold at a loss as feedstock to other industries. At the same time many tourists cancelled their travel plans in the false belief that the wine-growing region was directly impacted by bushfires.

Whilst there is a perception amongst some that the mining industry is well provisioned with water, they are not immune from drought impacts. During a prolonged drought, a reduction in operations is likely, with the flow-on impacts to local employment and our economy.<sup>60</sup> For our wine and tourism sector, the challenges are multidimensional. Being frugal with water was not something on the minds of most visitors, despite gentle prompts to be water-wise during dry times.<sup>61</sup> Keeping the water flowing to their customers necessitates costly and regular water carting for those whose operations are reliant on tank water. The visual appeal of our Region is diminished when drought conditions turn the paddocks to dust, and the vines are no longer postcard perfect.

### Community and Personal Impacts

It is therefore unsurprising that the top emotional challenges experienced by farmers is the financial burden, the impact of stock loss, the rebuild and recovery, the loss of control and family and personal trauma.<sup>62</sup> With livelihoods at risk, this creates stress across all generations. Suicidal behaviour is known to increase by up to 15% during severe drought<sup>63</sup> and in the period from 2016 to 2020, the Muswellbrook and Upper Hunter local government areas had one of the highest suicide rates in NSW.<sup>64</sup> This stems from a culmination of factors: rising financial stress from drought impact (especially in combination with increased costs of living, risks of economic downturn) which inevitably leads to increased tension in the home environment. Elimination of discretionary spending means few to no social outings and a chance to take a break. Long hours of hard work for all members of the family, from school-aged children to those who should be enjoying a relaxing retirement. A constant state of exhaustion from long hours which isn't helped by having minimal water to freshen up with a shower or launder dirty clothes.

### Environmental Impacts

Drought impacts extend to the environment. Dry soils become brittle and erode, vegetation is lost, and air pollution from dust storms increases.<sup>65,66</sup> A quote reported in the media referenced "one-inch cracks in the ground that go down probably half a metre".<sup>67,68</sup> Often dry conditions can allow weedy plant and pest species to proliferate, creating environmental harm, as well as additional stress for landholders with time, energy and money needed on pest control and weed management. In 2006-07, the Glenbawn and Glennies Creek storage reached an all-time low of 33% capacity.<sup>69</sup> When the dam levels are low, campers and fishers note that algal blooms are more likely, and the invasive carp thrives, outcompeting the native fish.



### Drought Strengths

Drought has also shown just how innovative, resourceful, and supporting our community can be. In 2018, the Muswellbrook and Upper Hunter Shire Councils launched their 'We LIVE Here' gift cards which channelled over \$1 million to support local businesses.<sup>70</sup> 2019 saw the introduction of the 'Spend in Singleton' card, an initiative of Business Singleton and Singleton Council, to similar success. A Merriwa farmer launched the 'One Day Closer to Rain' Facebook page to provide a place for people to share how drought affects them. Whilst the sister page, Rural Cottage Crafts acts as a platform for rural and regional

Australians, particularly women, to sell their home-made crafts. Local groups have rallied to provide community support, including: Muswellbrook Rotary Club raising \$45,000 in 2018, local chapters of 'Doing It for Our Farmers', a pop-up pantry in Mayne Street, Murrurundi<sup>71</sup>, and volunteers from further afield such as the Rural Aid Farm Army. Even in these times of adversity, the resilience of our farmers shone through. Despite the drought being 'the worst since 1870', a Cassilis sheep farmer captured national attention. He laid out sheep feed in the outline of Australia, capturing stark images of his sheep flock being kept alive in a barren paddock.<sup>72</sup>

### Feedback Loops

There were multiple drought impact pathways and feedback loops identified during the develop of this RDR Plan. A selection is shown in Figure 4.4.

#### How to read Figure 4.4

Each colour within the below feedback loop represents a theme or cluster of related impacts, flowing from the starting trigger, drought conditions. Green boxes broadly categorise environmental considerations, pink show agricultural themes, yellow, economic and social influences, and purple, reasons for retaining stock despite difficult drought conditions that otherwise may result in destocking. This diagram should be read from the centre outwards, starting at the black box, "drought conditions".

Cascading events are reflected in the next box, with direction of flow reflected by the direction of each arrow. These arrows can be read as "resulting in" or "producing". This map aims to provide a succinct story, reflecting voices heard across our community and informed by desktop research from the Resilience Assessment, demonstrating the systematic effects of drought. This systems map helped inform the Plan's proposed actions by distilling key themes and stories, whilst providing specific points that may require intervention (thereby identifying critical points where the Plan's actions can provide assistance).

Figure 4.4: Selection of drought-related impact pathways and feedback loops for our Region.



## WHAT WILL THE FUTURE LOOK LIKE?

Whilst we can't predict the future, there are projections and resources available, such as MyClimate View and the Department of Primary Industries and Regional Development's Climate Vulnerability Assessment.

These provide an indication of the conditions our Region may experience in the future to prepare for future droughts. While predicting weather conditions involves significant uncertainty, general trends are provided below. These drought projections informed our community engagement material, shaping the questions asked and information sought from participants. High level overviews of the climate data were provided at the beginning of each workshop to ensure our community was informed and aware of the possible future reality our Region faces. Further information was available upon request.

### My Climate View

A collaboration between Australia's national science agency CSIRO and the Bureau of Meteorology, aiming to provide Australian farmers with tailored insights into their changing climate by presenting agriculturally relevant historical and future climate information in one place so farmers can explore local climate trends. My Climate data provides information for various agricultural commodities including beef, sheep, dairy, wine grapes, and cropping (wheat, barley, sorghum, lupins). The resolution of data from My Climate View is a 5km x 5km grid which supports the assessment of climatic variations across the Region. Despite having an agricultural focus, the datasets support analysis of drought impacts on agriculture, people, and infrastructure.

### NSW DPIRD Climate Vulnerability Assessment

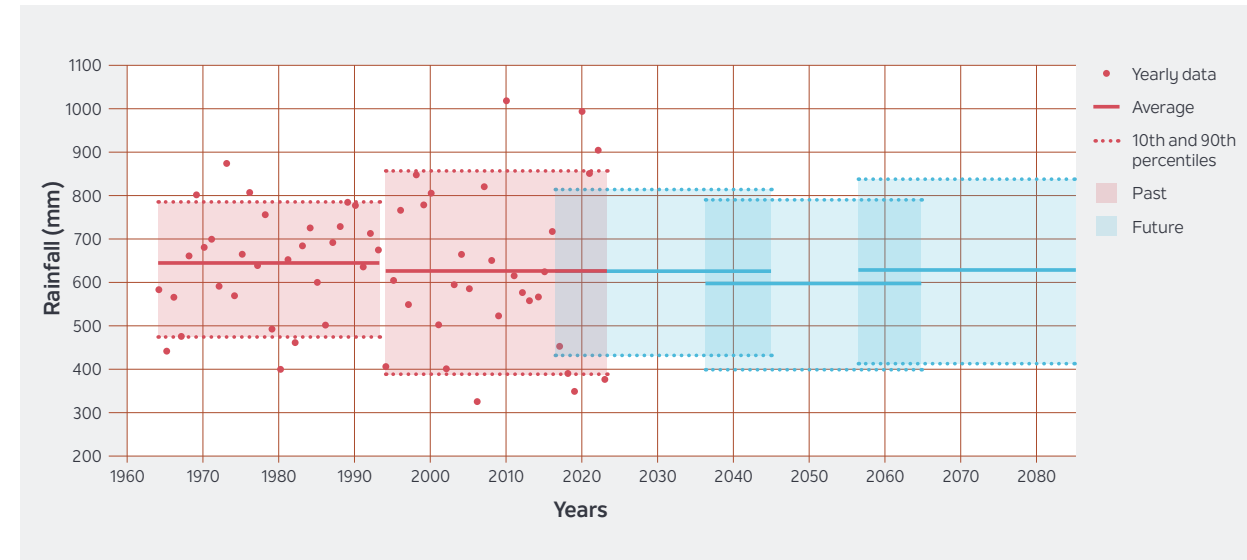
A climate vulnerability and opportunity assessment across NSW primary industries. This resource canvasses the resilience of extensive livestock, broadacre cropping, horticulture and viticulture, forestry, and biosecurity risk, providing information surrounding these industries. This is helpful in informing planning, risk management, and adaptation decision making.

Historical seasonal rainfall is highly variable across all parts of the Region. Within each season, there can be a five-fold difference between the rain received in one year and what is received in the next. This trend is set to continue in the future, with Figure 4.5 providing an example for Cassilis, which is a locality with a mix of grazing-reliant farms. With evapotranspiration expected to increase across all seasons<sup>73</sup> this means more water will be lost from above ground storage, vegetation, pastures, and soil. So even if the same amount of rain is received in a season or year, it will be less effective in stimulating pasture growth and filling our on-farm or public water storages.



Figure 4.5: Annual Rainfall, Historic Records, and Climate Projections (RCP 8.5) for Cassilis

Source: CSIRO & BoM. 2024.<sup>74</sup>



Droughts are often associated with El Niño conditions, creating above average temperatures. Extended periods of high heat increase evaporation, intensifying soil moisture loss and creating the conditions conducive to damaging bushfires.<sup>76</sup> These conditions are dangerous for our wildlife and natural environments, as well as for our livestock. Figure 4.6 shows the projected increase in dangerous heat stress days, using Denman as an example, given the number of beef graziers in the area.

The current and projected changes for high heat days and heat stress conditions are shown in Table 4.1 for a selection of locations throughout our Region. Readers are encouraged to view the climate projections for their specific location and agricultural enterprise on the MyClimateView website.

Figure 4.6: Heat Stress Days in the 'Danger' Category for Beef, Historic Records and Climate Projections (RCP 8.5) for Denman

Source: CSIRO & BoM. 2024.<sup>75</sup>

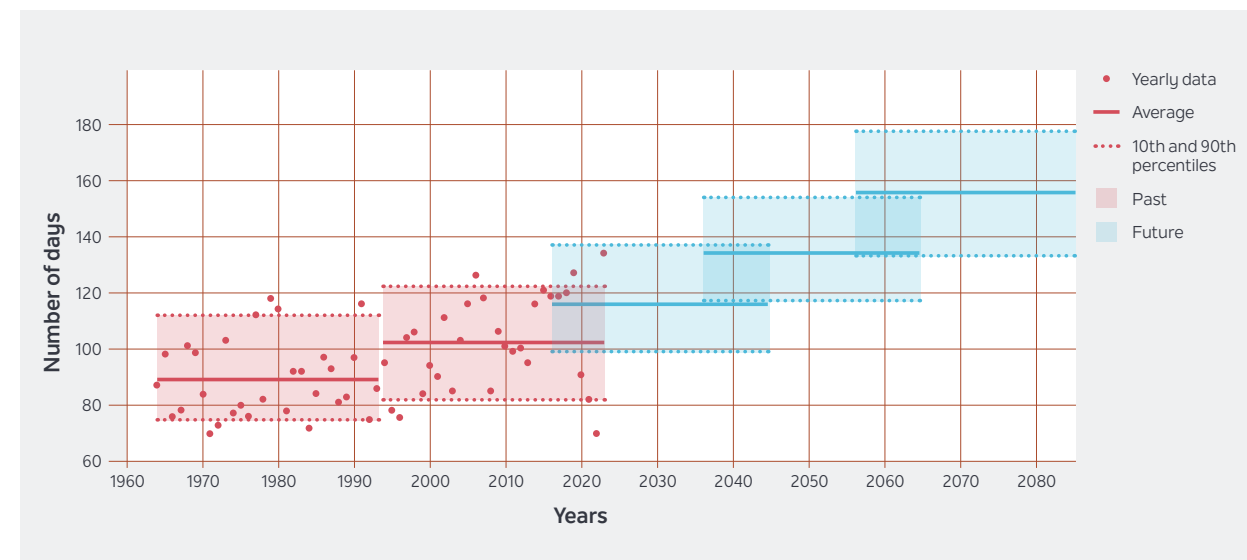


Table 4.1: Heat Climate Projections under RCP 8.5

	Singleton			Denman			Scone			Murrurundi			Putty		
	Baseline	2050	2070	Baseline	2050	2070	Baseline	2050	2070	Baseline	2050	2070	Baseline	2050	2070
<b>Number of days per year over 35°C</b>	23	37	46	30	47	57	27	43	53	10	20	26	13	23	29
<b>Number of days per year over 40°C</b>	4	7	10	5	10	14	3	8	11	0	1	2	2	3	5
<b>Heat stress days*</b>	80	126	146	89	134	155	87	130	151	46	83	101	54	96	115

Note: Baseline data refers to the 1964-1993 average.

\* Heat stress days consider temperature-humidity index over a particular threshold (>79), defined as 'danger' stress for beef production



# 05



## DROUGHT RESILIENCE CHALLENGES AND OPPORTUNITIES.

This section provides an overview of difficulties relating to drought and opportunities arising out of these challenges. These have been informed by our community engagement and desktop research conducted as part of the Resilience Assessment.

Challenges and opportunities identified as part of the desktop study, the Resilience Assessment, were validated and explored with stakeholders and community members.

An amalgamation of engagement feedback and the Resilience Assessment are provided over page.

## CHALLENGES

### Every drought is different

No two droughts are the same, with a multitude of factors determining the severity of impacts. The extent of dry conditions beyond our Region, affects the availability and cost of purchasing fodder, finding somewhere to agist stock and the price paid for animals at the saleyards. Market prices fluctuate, affecting the cost of inputs like fuel and fertiliser. Other stresses add to the burden, such as cost of living pressures, interest rates, housing affordability and availability. When we look to the future, there is no such thing as a normal season. Rainfall is projected to be highly variable and hotter temperatures are likely to increase moisture loss from soil and pastures. When rain does fall, runoff into dams may be less than expected. Future droughts are likely to worsen, becoming longer, more intense, or more frequent. The ever-changing nature of droughts and possible future climatic conditions raises the imminent need for flexibility and adaptive management to ensure nimble responses. Forward planning and examination of known successes during past events builds the bank of knowledge held within our community.



### Constrained funding for water infrastructure

Communities relying on water resources and availability are also placed under significant stress during drought. As an example, Singleton water planners expect that droughts resulting in a 25% decline in water allocations will result in unmet demand by 2032.<sup>77</sup> Water prices increase, with many rural residents (not serviced by reticulated water systems) carting water to their properties, a costly exercise. Whilst subsidised, alongside other compounding stresses such as rising petrol prices, this places additional burdens on farmers, particularly given the quantities of water needed to be obtained for livestock consumption. All three councils face tensions, torn between revenue raised from water services, whilst maintaining efficient infrastructure and water saving initiatives, reducing water consumption. It must also be noted that while all three participating councils identified water infrastructure projects within the Regional Drought Resilience Planning program, securing funding for large scale projects is challenging. Whilst funding is constrained and resourcing challenges remain an ever-present challenge for the Region, actions working to improve water infrastructure would enhance regional water security. This could be supported by grant funding to allow for forward planning and water infrastructure upgrades.



### Ineffective water market

The Greater Hunter region's water market is inefficient as only 10% of water is potentially available for trading.<sup>78</sup> The water that is traded is mostly at a price beyond the reach of most within the agricultural industry. Whilst the mines largely rely on rainfall for their operations and some mines operate their own water-sharing program, they still hold a share of water entitlements: 95% of licences in Glennies Creek below Glennies Creek Dam, 18% of the Lower Wollombi Valley, and 14% of the Hunter Regulated Alluvium groundwater sources.<sup>79</sup> Working to ensure fair water allocations and compliance across the Region are recommended in response to known water market challenges.



### Small lot sizes and farm profitability

Community frequently described the difficulties concerning sustainable farming practices and the ongoing viability of local farms. Small parcels of fragmented land constrain graziers, croppers, and other enterprises from generating a profit solely from agricultural endeavours. Many within the industry balance their farming commitments with part- (or full-) time off-farm work, providing a diversified income. However, this reduces the time and energy available to dedicate to management activities on their parcel of land or leads to lives becoming a physical and mental marathon of 12 to 15 hour days. Tax rebates further complicate the system, potentially creating incentives resulting in decisions which may not be financially sustainable in the longer term. For others, turning a profit is not a high priority, and their motivations are more around the lifestyle, living closer to nature, or perhaps having space between themselves and their neighbours. Many of our landholders are also relatively new to the land, meaning they don't have access to decades of farming experience to call upon when times turn tough. Drawing upon local knowledge from those who have lived within the Region for numerous years would assist newcomers within our community. Likewise, benefits to social infrastructure can be realised. Maximising farming capacity and working to build spare capacity and redundancy will assist small farming operations in remaining viable during tough times.



**Difficulty in turning a profit**

The Region has faced compounding disaster events from natural hazards. From drought (2017-2020), to bushfire (2019-2020), to flood (2021), the pandemic (2019-2021), more floods (2022), and a mouse and locust plague (2022). The back-to-back, unrelenting nature of these events provide minimal opportunities to recover, physically, emotionally or financially. Whether it is through loss of stock, poor or no harvests, damage to infrastructure or a backlog of maintenance, it is difficult to return to profit. The pricing regime of supermarkets was singled out by many landholders for being unfair and failing to value their constant hard work.<sup>80</sup> Efforts to maximise community resilience, supporting mental and physical wellbeing will encourage the Region to take care of themselves during periods of difficulty. Actions and activities working to support community groups, likewise, ensure sufficient social infrastructure exists for the Region to lean upon during these challenging periods. Work bolstering the financial viability of farming operations (such as business and financial contingency planning) could also provide benefits.



**Growing expectations on farmers**

Farmers are facing growing expectations to do more. Transitioning towards carbon neutral farming, regenerative agriculture practices, and environmental accounting create extra burdens. Compliance and bureaucratic administrative requirements build further obligations on time-poor individuals. Furthermore, farm succession planning, navigating exit plans or transitions to the next generation to ensure security and involvement of younger parties can take years. This places additional strain during otherwise already difficult circumstances. Encouraging the uptake of social support systems (as simple as joining a friend for a cuppa or playing rugby at the local footy club) provides reprieve from these growing expectations. Clear lines of communication, leveraging knowledge already held within the community and supporting small business financial viability under this Plan are expected to bring additional benefits to the Region.



**Farmer physical and mental wellbeing**

Following a disaster, it is said 1 in 5 farmers want to give up.<sup>81</sup> During drought, primary producers handle heavy burdens. Between hand feeding stock, carting water, and providing for their households, many have limited time or money for social and recreational activities which provide a reprieve or mental break from the farm. These financial and time pressures can segue into mental health issues.



This distress can cause increased risk of substance abuse and domestic violence. Farmer stoicism can also reduce the likelihood of someone reaching out for help. When they do, many face the difficult process determining which provider is appropriate. Even if they find the appropriate organisation, services may have long waiting lists, meaning necessary support is not available when needed most. Recognising the constraints poor mental and physical health holds upon farmers and their families, this Plan works to support community and facilitate fit-for-purpose social infrastructure to further the Region's journey in improving mental health and wellbeing.

**The mining conundrum**

Mining offers significant salaries and income to the Region, the highest of any employers.<sup>82</sup> However, some within the community raised significant concern regarding the fragmentation of land and environmental impacts of this industry. Some believe that valuable land is being lost to the mines or associated environmental offsets, reducing the land available for grazing, and even where land is rehabilitated, the quality of the pasture is seen to be inferior. As coal-fired power stations close, and the energy sector moves towards renewables, the skills required by energy workers will change. Workers may need to upskill or re-skill. Uptake of opportunities arising during the mineral extraction transition will encourage and maximise the Region's potential in remaining an economic powerhouse during this change. Leveraging existing opportunities, the mining industry provides additional means for the Region to build drought resilience, primarily through the provision of financial support and job opportunities.



**A fragmented communication landscape**

Across the Region, feedback was received that the closure of locally run newspapers, such as the Scone Advocate, Hunter Valley News, and Upper Hunter News, had impacted the ability to tell local stories, and promote local events. This extends to the decline in people listening to radio. Whilst the younger generations have grown up with social media and are digitally savvy, many within our older cohort have not kept pace with these new communication modes. Connecting individuals to information, support services, and events is therefore challenging. There is no one best way for service providers to get their message out there, and no single option for community groups to offer their support and connect with members of their community. Recognising the dividing nature of this challenge, with young and elderly populations engaging with different methods of communication, actions within this Plan could focus on development of a universal communication method relating to drought. Incorporating drought considerations within planning policies, whilst leveraging knowledge already circulating across the community will allow for the formation of a comprehensive drought communications plan.



**OPPORTUNITIES**

**Our landholders are resilient**

A region is as strong as its people. Our community continues to show that we are tough, coping with additional burdens and challenges as they arise. We see our landholders using entrepreneurial insight and ingenuity. People can juggle caring for their land, running a business or working off farm, and maintaining family relationships. However, there is a limit, and rural residents don't always 'bounce back' after difficulty. Such labels can also create pressure to 'tough it out'. Opportunities exist to shift the focus to one which supports wellbeing at all times for happy, healthy and thriving individuals and for communities that care for one another and look after their mates. Leveraging our Region's collective resilience, it remains critical that this Plan continues to support the community's mental and physical wellbeing. Actions tailored towards financial pulse checks, supporting social infrastructure and community groups, and leveraging community knowledge will ensure that our landholders remain resilient in future drought events.



**Community spirit and volunteers**

As a Region, we are blessed with a diverse and welcoming community. Through commitment, kindness, and teamwork, stories of compassion and camaraderie were heard throughout engagement conducted for this Plan. We are supported by numerous community facilities (like town halls, sporting facilities, and pony clubs), providing communal points of assembly. Organisations and social movements such as 'Where There's a Will', 'One Day Closer to Rain', 'Cuppa and Connect', 'Farmer Wants a Fish', and 'Our Shout' are locally led initiatives already providing improved connection across the Region. Social infrastructure such as community halls act as "hubs" during drought, offering a communal location for locals to chat, and for service providers to meet with affected landholders. Actions tailored within this Plan should work to capitalise on this community spirit, ensuring community groups retain ongoing support and our community champions are supported in our collective drought resilience journey.



**Transition to new and emerging industries**

Some mines and power stations in the Region are reaching the end-of-life, with their land being rehabilitated or transformed into new uses. This may free up ground and surface water entitlements for other uses and there is a strong desire among locals to know what will happen to water allocations and resources. Others see potential in using mining buffer land for other industries such as intensive agriculture. Shifts are also occurring across the globe as we transition to a lower-carbon economy. New and emerging industries are possible for our Region which may bring new employment industries and a need for workers with different skill sets. The proximity of our Region to the Port of Newcastle, Newcastle Airport and the Sydney market, is a source of opportunity to strategically optimise our agricultural outputs.<sup>83</sup> Improving the economic viability of small businesses and leveraging our biggest industry for enduring community benefit would assist our Region. Actions leveraging opportunities from industry transitions will ensure the Region remains an economic powerhouse in years to follow mine site closures.



**Natural resource stewardship**

Caring for Country and optimising our existing natural resource management are opportunities to improve our long-term drought resilience.<sup>84</sup> Building natural capital and strengthening the natural resilience and condition of the Region's ecosystems will encourage ongoing environmental stewardship, benefiting both humans and wildlife/plants. Entities such as Local Land Services and Landcare are active in our Region, offering resources and promoting best practice in vegetation cover, pest and weed control, soil health, regenerative farming and water management. Environmental offsets and biodiversity conservation agreements provide further opportunities to demonstrate how much we value our natural environment. These approaches can achieve co-benefits, improving farm profitability, diversifying income sources, and providing opportunities for eco- and agri-tourism. Actions maximising water retention across the landscape, incorporating First Nations land management techniques, and maintaining healthy soils and native vegetation could be considered by the Plan to build the resilience of our natural assets.



**Connecting people with resources**

There are many data sources available to improve awareness of seasonal and longer-term weather conditions and provide early indicators to assist in decision making. Local Land Services, Landcare, and Department of Primary Industries and Regional Development have a large array of information, webinars, events, and other resources to assist landholders. The key is to connect the audience with these resources, in a way that speaks to their motivations, and what they value most. Maximising clear lines of communication, ensuring community knowledge is leveraged and forward planning is utilised to reach a broad audience with available resources and support could be considered by this Plan as a potential action area.



**First Nations land management**

The Region has a strong connection to Country, with First Nations people – the oldest continuing culture in the world – passing down cultural practices through the generations for more than 65,000 years. Opportunities arise in coordinated cultural burns and firestick burning approaches: reducing fuel loads, moderating weeds and pests, and helping our land to heal and regenerate. Embracing First Nations cultural land management has the potential to deliver cultural, social, drought and disaster resilience benefits. Actions raised within this Plan could consider a return to traditional land management techniques such as cool fire burns to regenerate flora, providing both environmental and social/cultural benefits to the Region.



The **Sustainable Development Goals (SDGs)**, adopted by the United Nations in 2015 are a universal framework and blueprint to achieve a resilient and sustainability future for all.

They have been widely adopted within the global community to guide the sustainable development process across environment, social, and economic pillars. SDGs have been utilised throughout this RDR Plan to demonstrate the linkages between the Region’s challenges, opportunities, actions, and the resilience and sustainable future pathways.

Read more: <https://sdgs.un.org/goals>



**A PLAN FOR DROUGHT RESILIENCE.**

The Program Logic in *Table 6.1* describes our drought resilience journey. This starts with a shared vision, strategic objectives and goals and our pathway to change via priority and complementary actions to support the achievement of our desired short- and long-term outcomes.



Table 6.1: Program Logic



## ACTION STRATEGIC ALIGNMENT

To ensure our Region is leveraging existing work and initiatives, it is helpful to consider how this RDR Plan aligns with existing policies, strategies, and legislation. *Table 6.2* provides a quick overview of how identified actions brought forward from our community within this Plan align within the existing political arena. For example, our action "Ensuring economic prosperity as Our Region transitions" is highly relevant to and shares synergies with the Upper Hunter Destination Management Plan, which aims to build tourism and visitation to the Region. Our action aims to diversify the regional economy away from single sources of income (largely mineral extraction), while the Destination Management Plan works to diversify the economy through bolstering of the tourism industry.


Meanwhile, documents such as the Australian Government Drought Response, Resilience, and Preparedness Plan 2019 have a broad applicability to our Plan. It is a pivotal document in establishing the drought preparedness and resilience scene across Australia and directly links into this Plan. This means all actions directly reducing drought's influence on our Region are closely aligned with the intentions of this national plan. Supplementary actions, working to reduce co-stressors (such as boosting community resilience and improving economic resilience) are ancillary to the national plan.


Each '•' within *Table 6.2* notes synergies between our Plan and the existing strategic policy sphere.

*Table 6.2: How Our Actions Align with Strategic Policies and Strategies (Local through to International)*

Relevant Policies and Strategies		Comprehensive drought communications plan	First Nations land management practices	Supporting our community groups	Ensuring economic prosperity as our Region transitions	Forward planning and helping our water users prepare for dry times
Singleton	Community Strategic Plan	•		•		
	Local Strategic Planning Statement	•				•
	Integrated Water Cycle Management Strategy					•
	Climate Change Risk Assessment and Adaptation Plan		•			
	Sustainability Strategy 2019-2027					•
	Council and Community Emissions Reduction Action Plan 2023		•			•
	Socio-Economic Development Strategy – 2020-2024				•	•
Muswellbrook	2022-2032 Community Strategic Plan	•		•		
	Local Strategic Planning Statement 2020 – 2040	•		•		
	Integrated Water Cycle Management Strategy					•
	Adverse Impacts Plan 2020				•	

Relevant Policies and Strategies		Comprehensive drought communications plan	First Nations land management practices	Supporting our community groups	Ensuring economic prosperity as our Region transitions	Forward planning and helping our water users prepare for dry times
Upper Hunter	2032: Community Strategic Plan	•		•		
	Local Strategic Planning Statement	•			•	
	Integrated Water Cycle Management Strategy					•
	Upper Hunter Destination Management Plan				•	
	Sustainability Action Plan					•
Regional	Climate Change Strategy and Action Plan		•			
	Hunter Joint Organisation Local Disaster Communication Planning Framework	•				
	Upper Hunter Economic Diversification Plan				•	
	Hunter Regional Economic Development Strategy 2023 Update				•	
	Greater Hunter Regional Water Strategy					•
	Upper Hunter Water Utilities Alliance (UHWUA) Drought and Emergency Response Management Plan 2022					•
	Destination Management Plan Hunter Valley Situation Analysis 2022				•	
	Hunter Valley Destination Management Plan 2022-2030				•	
	Hunter Regional Plan 2041				•	
	State	NSW Water Strategy 2021	•			
NSW Waste and Sustainable Materials Strategy 2041					•	•
NSW Climate Change Adaptation Strategy			•		•	
20-Year Economic Vision for Regional NSW (20-Year Vision) 2021					•	
Managing and Preparing for Drought 2018		•			•	
NSW Climate Change Policy Framework		•				
Extreme Events Policy		•				
NSW State Disaster Mitigation Plan 2024-2026	•		•		•	

 Relevant Policies and Strategies		Comprehensive drought communications plan	First Nations land management practices	Supporting our community groups	Ensuring economic prosperity as our Region transitions	Forward planning and helping our water users prepare for dry times
National	Australian Government Drought Response, Resilience, and Preparedness Plan 2019	•	•			•
	National Drought Agreement 2018	•			•	•
	National Climate Resilience and Adaptation Strategy 2021-2025		•			•
	National Climate Risk Assessment First Pass Assessment Report		•			
	The Second National Action Plan to Implement the National Disaster Risk Reduction Framework		•			
International	UNCCD Drought Resilience Technical Guideline					•
	Sendai Framework for Disaster Risk Reduction 2015-2030 Action 1 – Understanding Disaster Risk	•			•	•
	Sendai Framework for Disaster Risk Reduction 2015-2030 Action 2 – Strengthening disaster risk governance to manage disaster risk	•	•	•	•	•
	Sendai Framework for Disaster Risk Reduction 2015-2030 Action 3 – Investing in disaster risk reduction for resilience		•			•
	Sendai Framework for Disaster Risk Reduction 2015-2030 Action 4 – Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.	•		•		•
	SDG 1: No Poverty*					
	SDG 2: Zero Hunger*					
	SDG 3: Good Health and Well-Being	•			•	
	SDG 4: Quality Education	•	•			
	SDG 5: Gender Equality*					
	SDG 6: Clean Water and Sanitation					•
	SDG 7: Affordable and Clean Energy				•	
	SDG 8: Decent Work and Economic Growth				•	
	SDG 9: Industry, Innovation and Infrastructure		•		•	•
	SDG 10: Reduced Inequalities	•	•		•	•
SDG 11: Sustainable Cities and Communities	•		•	•	•	

 Relevant Policies and Strategies		Comprehensive drought communications plan	First Nations land management practices	Supporting our community groups	Ensuring economic prosperity as our Region transitions	Forward planning and helping our water users prepare for dry times
International (cont.)	SDG 12: Responsible Consumption and Production	•				•
	SDG 13: Climate Action		•			•
	SDG 14: Life Below Water*					
	SDG 15: Life on Land	•	•			•
	SDG 16: Peace, Justice and Strong Institutions			•		
	SDG 17: Partnerships for the Goals	•	•		•	•

\*Actions have been developed to align with the three pillars of resilience: economic, environmental, and social. Sustainable Development Goals (SDGs) adopted by the United Nations align with these three pillars, acting as a blueprint for peace and prosperity across our planet and people, both now and into the future. For homogeneity, challenges, opportunities, and actions have been linked to key SDGs to demonstrate the linkages throughout this RDR Plan. SDGs marked with an \* do not align with the RDR Plan's actions but have been included for entirety.

The **Sendai Framework** focuses on the adoption of measures which prevent the creation of new risk, reduce existing risks, and increase resilience, which align with the objectives of this Regional Drought Resilience Plan (RDR Plan). Of the seven global targets to guide progress on the Sendai Framework, this RDR Plan will support six of the targets: reducing disaster mortality, reducing the number of people affected, reducing direct economic losses, reducing disaster damage and disruption of basic services, increasing the number of countries with local risk reduction strategies, and increasing the availability of and access to multi-hazard early warning systems.



# ACTION PATHWAYS

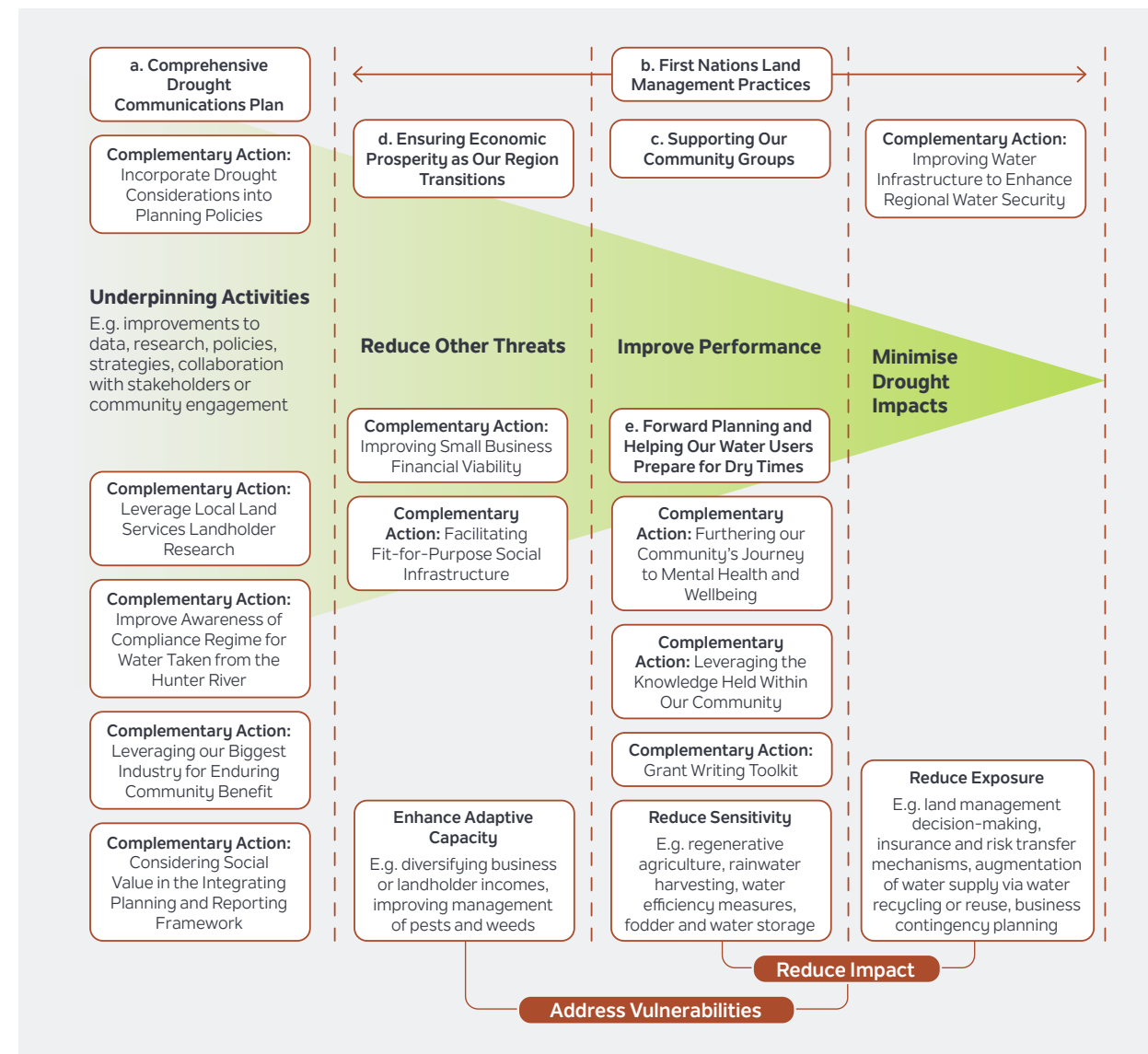
Figure 6.1 demonstrates how the priority actions of this RDR Plan locate on the impact pathway spectrum. The impact pathway spectrum represents different activities that may help build resilience to drought in the Region and range from supporting or underpinning activities, enhancing adaptive capacity, improving performance, and reducing exposure. The actions developed in this Plan are spread across this spectrum to provide a comprehensive approach to address drought vulnerabilities and reduce drought impacts. The actions were developed, evaluated, and prioritised during the stakeholder and community engagement program using the approaches discussed in The Process section.

In subsequent pages, action plans for the five priority actions are documented and include information to support funding endeavours, and recommendations for implementation. This includes action rationale, high-level estimated costs and implementation timeframes, implementation steps, potential benefits, and complementary actions.

Please note the information provided within action plans, particularly timeframes and costs, are intended as preliminary estimates to be further developed in subsequent phases following the completion of this RDR Plan.

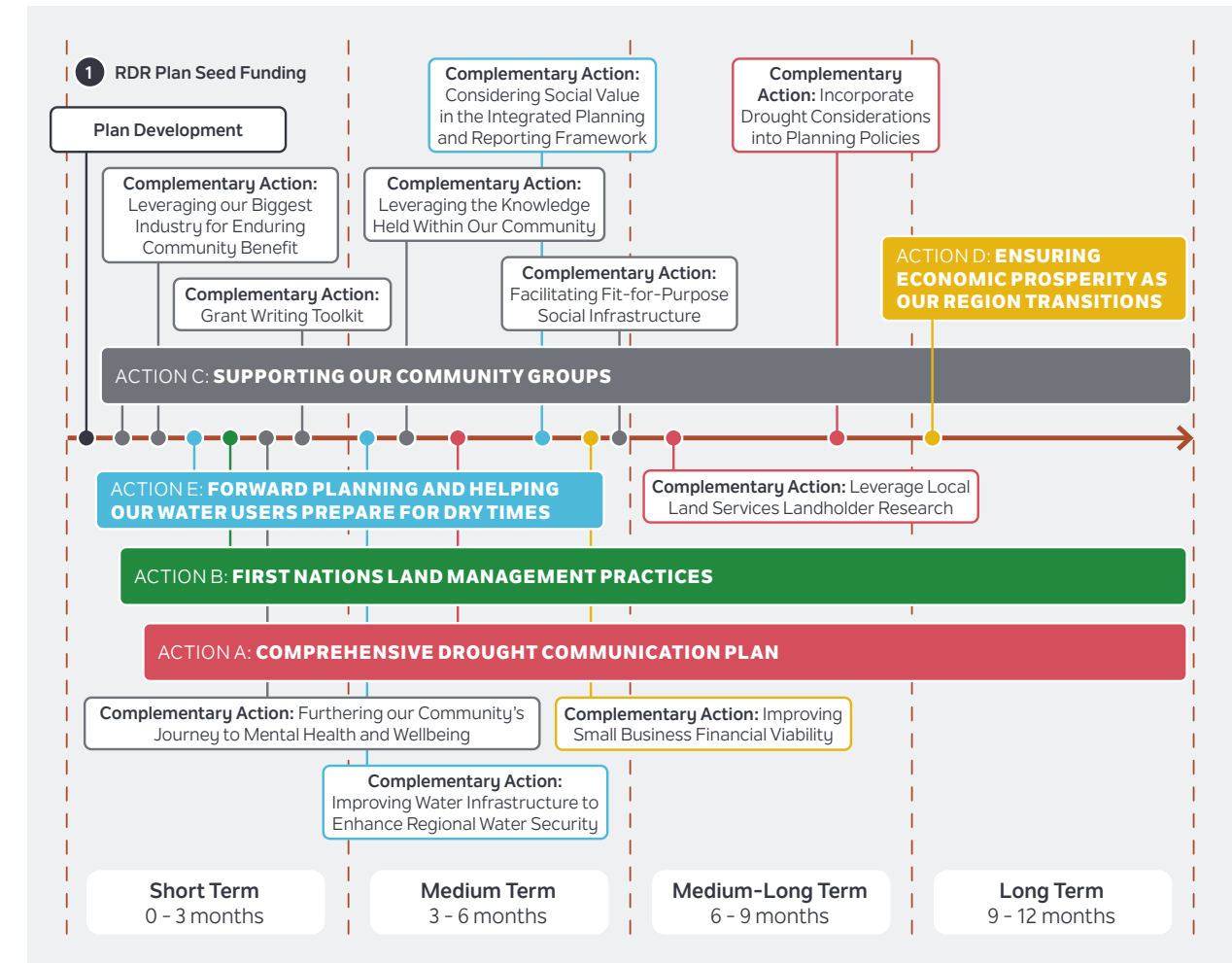
Figure 6.1: Action Pathways

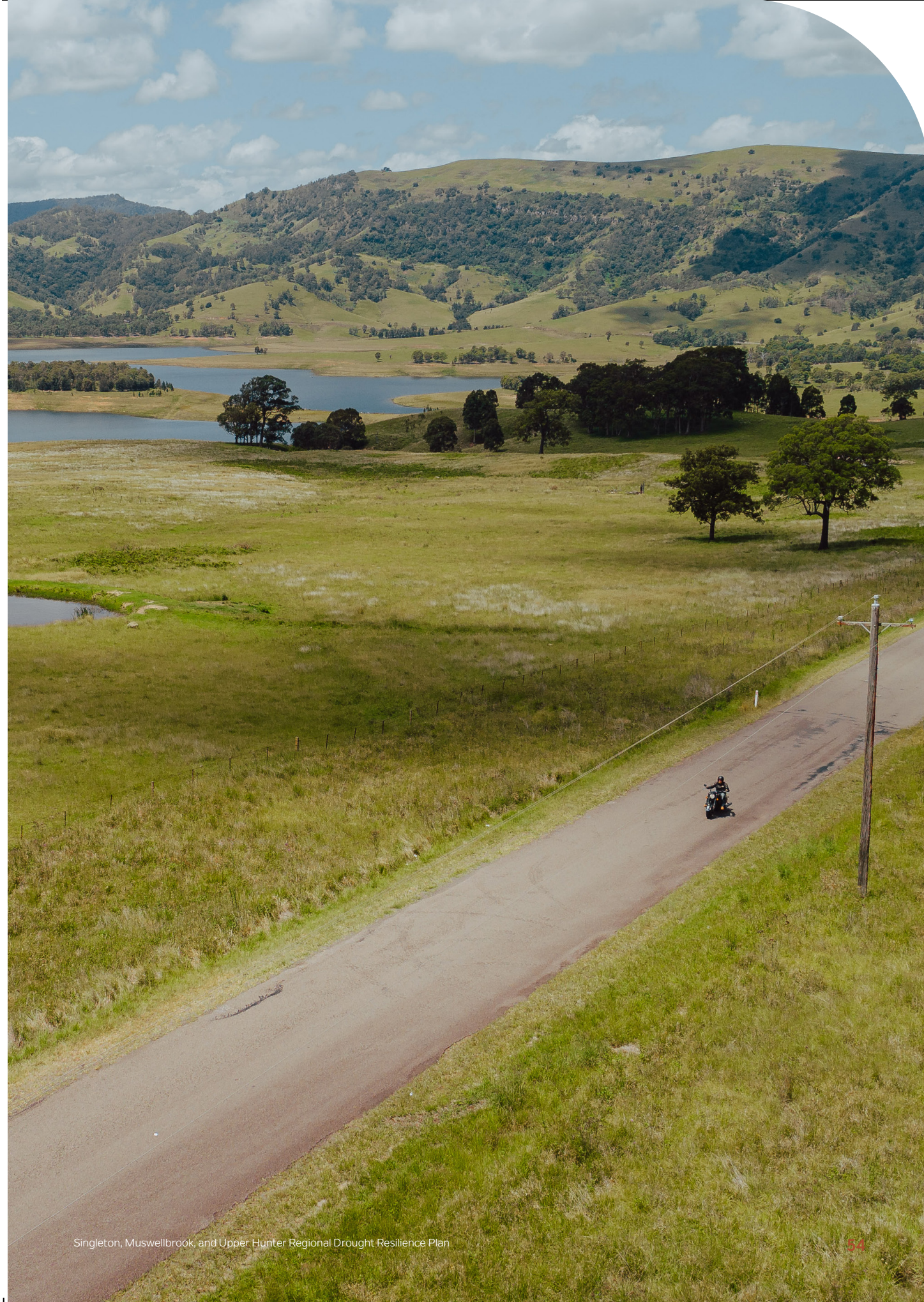
Source: Adapted from the National Environmental Science Program, Climate Systems, Interventions for Biodiversity Conservation



The prioritised actions for this RDR Plan have been tentatively mapped against the 1-year RDRP implementation timeframe. While these suggested timeframes indicate when each action could be initiated, it is important to note that the expected impacts of these actions (including some implementation) will extend well beyond the 1-year period. This approach ensures that we can achieve both immediate and sustained progress towards our resilience goals.

Figure 6.2: RDR Plan Implementation Timeline









## HOW TO READ AN ACTION

Collectively, the five priority actions and further complementary actions outlined within this section aim to provide our Region with a sound basis to achieve our vision to build a drought-resilient community. The actions outlined in this RDR Plan follow a consistent format, including the following information:

### Themes

A brief snapshot of the action's theme. This Plan considers four key thematic areas:

- 01 Environment** 
- 02 Social** 
- 03 Economic** 
- 04 Water** 

Additionally, each action has been aligned with the Sustainable Development Goals (SDGs) to reflect international best practice.

### Rationale

This section explains why the noted action appears within the final RDR Plan. It contextualises information heard from our community alongside how the action will promote drought resilience across the Region.

### Timeframe

The estimated timeframe for action completion.

### Estimated Costs

Approximate, preliminary costing estimated for each proposed action/project, remaining subject to funding and resource availability.

### Action Owner

The proposed lead coordinator who will drive action development.

### Stakeholders

Outlines who will benefit from this action and who is the intended audience and recipient of the project.

### Steps for Implementation

A suggested methodology from resilience specialists which can be used by action owners in conjunction with local knowledge and preferential steps to undertake each action.

### KPIs

Key performance indicators which provide a means to measure the success of each action.

### Linkages to Existing Strategies

1-3 highly relevant policies and strategies aligning with the detailed action, demonstrating how the RDR Plan action contributes to achieving the goals of an existing plan, or vice versa. Further strategic alignment is canvassed within *Table 6.2* above.

### Resilience Dividend

Expected benefits likely to arise as an action is carried out. This section reflects the positive benefits gained through project investment across projects designed to bolster drought resilience as opposed to business-as-usual.

### Complementary Actions

Further supplementary actions raised during engagement which complement the prioritised actions within this Plan.

# ACTION A: COMPREHENSIVE DROUGHT COMMUNICATION PLAN

## Theme: Cross cutting



### Rationale

A consistent theme heard throughout the engagement period and validated by the three councils was the strong need for a comprehensive and coordinated communication plan and approach to support improved dissemination of information across the Region. Feedback highlighted that there was limited understanding of, or consistency of information relating to available support, programs, and initiatives available to assist with drought preparedness efforts and how to access them. It was also evident that information needs to be tailored to different audiences and provided in multiple formats (both physical and digital) in easily accessible language. With growing expectations on farmers to meet new "climate-friendly" KPIs and to be drought forward-thinking, the overwhelming amount of information available across the Region presents challenges. For this reason, a comprehensive drought communications plan was recommended during engagement to address the fragmented communication landscape, connecting people with resources (an identified opportunity for the Region).

This action contains several elements, each of which forms part of an overall Comprehensive Drought Communications Plan (Communications Plan) designed to address the challenges identified and increase preparedness for and resilience to future droughts. There is also the opportunity to leverage the Communications Plan with the Disaster Communications and Planning Framework and Toolkit identified by the Hunter Joint Organisation, which contains key communication resources and structures to assist with preparing communication collateral during disaster.

This action would be implemented over time, with the opportunity for different elements to be delivered at different stages once the baseline and foundational elements have been achieved. Some of the elements will either maintain or modify the system, while others will be transformative, strengthening resilience and shifting the dial towards greater self-empowerment.

### Part A: Building Stakeholder Database

The foundational element of the Communications Plan is the development of a Stakeholder Database. It was evident during the engagement process that there isn't a consistent or consolidated process for recording stakeholder and community details.

This makes it difficult for councils to contact groups of stakeholders and ensure that the people who need the information are receiving it.

By developing a stakeholder database, using an established tool such as Consultation Manager, councils will be able to store stakeholder information and record when and how stakeholders have been engaged. Knowing who the key community stakeholders and champions are will also assist in coordinating and efficiently linking people in need to the appropriate available support.

This element has the potential to transform the system, increasing the connection and partnerships between councils and the community, the depth of understanding in the community of information and support available, and subsequently increased drought resilience. This element will also support other council initiatives beyond drought resilience and preparedness.

### Part B: Leveraging Existing Channels and Events

Engagement findings showed that there are existing communications channels, activities, and events which could be leveraged to avoid duplication of resources and funding. A key step in developing the Communications Plan will be to identify these existing channels, activities, and events that could be utilised to further promote drought preparedness and resilience.

In terms of events, an integral step will be liaising with the key industries, such as wine, tourism, grazing and equine stakeholders, to identify opportunities to add value to existing events. This will avoid duplication and also assist people who are time poor to attend a range of industry events to receive multiple benefits in one event.

These events will provide networking and connection opportunities, which are critical to maintaining positive morale and mental wellbeing.

Councils already have established communications channels which can be leveraged to improve dissemination of information about drought preparedness. These channels include the rates notices, newsletters, council websites and social media pages.

Once identified, these activities, events, and channels will be included in the Communications Plan and form part of the overall action plan to roll out throughout the Region.

This element is expected to both maintain and modify the system, by utilising existing resources to raise awareness about drought resilience with a broader reach of audience.

### Part C: Dedicated Information portal

A key element of the Communications Plan is establishing appropriate avenues to share information across the Region. Feedback from the engagement found there is a disconnect between the information developed and the intended audience. There is a need for a 'one-stop-shop' of information that is accessible to a wide range of people. It is envisaged that a local drought portal could be created and embedded on each council's website. Local employers can act as a valuable conduit to disperse information. This portal could also be embedded within the intranet pages of large local employers, should they wish to participate.

The portal would include information about available services, training sessions and e-learning modules, amongst other general drought preparedness information. By embedding this information on intranet sites, which are high traffic sites for local employees, the information will be more widely accessible. This element will, in the first instance, involve collating information already available, followed by establishment of an online portal. Additional information can be added as it is developed or made available. This element is expected to modify the system, but may also contribute to transformation, as the portal can be scaled over time with additional functionality as funds are sourced.

#### Timeframe

6 months to 1.5 years

#### Estimated Costs

\$50,000-\$150,000

#### Action Owner

Singleton, Muswellbrook Shire, and Upper Hunter Shire Councils

#### Stakeholders

Key stakeholder groups, such as the Rural Support Services Network, and community champions / organisations, local employers, landholders, and other community members / residents

### Steps for Implementation

1. Develop and issue an RFQ for a contractor to develop the Drought Resilience Communications Plan.
2. Undertake a review of Consultation Manager programs, using lessons learned from other councils, before purchasing a licence to an appropriate program.

3. Utilise the services of the communications contractor to host a series of internal council meetings to determine existing stakeholder databases and establish a process for consolidation and migration to the new program.
4. Hold a series of key stakeholder interviews to identify any gaps in the stakeholder lists.
5. Undertake a review of online portal programs, using lessons learned from other councils, before purchasing a licence to an appropriate program.
6. Utilise the services of the communications contractor to host a series of internal council meetings to determine appropriate information for the online portal.
7. Hold a series of interviews with key local employers about the best approach for embedding the portal on intranet sites.
8. Work collaboratively with the communications contractor to develop the Communications Plan, which will include detail of key engagement activities and dissemination channels, stakeholder mapping, and key messages.
9. Deliver engagement activities and information through the avenues and channels outlined in the Communications Plan.
10. Monitor media coverage and analyse its impact and reach, making recommendations to stakeholders for improvement regarding engagement.
11. Develop a plan, with key responsibilities and actions, to manage updates to the Communications Plan to ensure the content remains current.
12. Incorporate the Plan within Integrated Planning and Reporting documents and/or communications plans across each Council (where funding and resources are available).

### KPIS

1. Number of stakeholders added to the database.
2. Number of stakeholders reached using existing channels.
3. Number of existing activities and events leveraged to promote drought resilience and preparedness and participant numbers.
4. Number of social media posts, council website updates, and newsletters and rates notices distributed.
5. Number of visits to information portal.
6. Number of downloads from information portal.
7. Increased uptake of support and services.

### Linkages to Existing Strategies

- Community Strategic Plans (Singleton Community Strategic Plan, Muswellbrook 2022-2032 Community Strategic Plan and 2032 Community Strategic Plan (Upper Hunter)): These plans outline how Council will work with community to ensure consistency and informed decision making. A clear and comprehensive drought plan will work to fulfill the goals of this Plan.
- Hunter Joint Organisation Local Disaster Communication Planning Framework: This communication framework is highly relevant to our RDR Plan, providing a possible template and key messaging tools that could be utilised to the RDR Plan's advantage.
- Sendai Framework for Disaster Risk Reduction 2015-2030, Action 1, Understanding Disaster Risk: As an action focused on ensuring clear lines of communication across Councils to maximise peer-to-peer learning, this works directly towards increasing the Region's understanding of drought, a slow-onset disaster event.

### Resilience Dividend

- **Social** – increased understanding of support and services available, as well as improved social connections, with greater uptake and awareness of available support services offered across the Region (both physical health, mental, and financial supports), and increased attendance at events and activities.
- **Economic** – increased financial sustainability of local residents, landholders and business owners through increased understanding of drought preparedness and resilience measures.
- **Environmental** – increased uptake of preparedness measures, including sustainable land management practices through increased awareness of available support and programs.

### Complementary Actions

#### Leverage Local Land Services Landholder Research

There is an opportunity to leverage the Local Land Services led research Hunter Land Management Framework: 'Paddock between the ears: leveraging social capital to build natural capital', to gather a deeper understanding of the local farming community and whether the policies and interventions are performing as intended. Engagement findings indicated a lack of awareness of initiatives, activities and understanding, which validates the need to review how and who initiatives are targeted at.

This complementary action involves organising a knowledge sharing session between Local Land Services, council representatives and other relevant stakeholders to discuss the findings from the research and cross map existing interventions and proposed new interventions with typologies identified through the research.

This activity will help to target existing and new initiatives with the right stakeholder groups to be more effective. An appropriate approach for an adjusted approach would then need to be determined.

It is important to note that the findings of the research are not currently available, and this action progressing would be contingent on accessing the information. If this complementary action can progress, it has the potential to transform the system. Receiving specific information about stakeholder groups and the ability to adjust approaches to ensure increased success of policies and interventions would significantly increase drought preparedness and resilience.

#### Incorporate Drought Considerations into Planning Policies

The Singleton, Muswellbrook, and Upper Hunter agricultural industry has changed significantly over recent years, with a shift away from large dairy, cattle, and grazing farms towards smaller farms. These smaller rural lots often do not provide a sufficient land area to enable a sustainable and financially profitable agricultural enterprise. Engagement feedback highlighted this shift with many of these lots referred to as hobby farms or lifestyle blocks. The Local Land Services research in *Complementary Action: Leverage Local Land Services Landholder Research*, yet to be publicly published, provides complementary evidence of this change in focus from rural land purely delivering financial returns to landholders seeking a range of tangible and intangible value from their land.

This complementary action would involve conducting an informal review of existing Local Strategic Planning Statements for each council area. This would seek to identify how the planning mechanisms are interacting with agricultural financial and tax implications, such as primary producer status, which may be at odds with lot sizes incapable of delivering sustainable financial returns. For example, the question was asked during the engagement for this Plan, whether the approach to land use planning is setting people up for failure during drought. This informal review would seek to capitalise on the findings from the engagement conducted for this RDR Plan and the insights gained from the Local Land Services research. Review findings could then be incorporated into the councils' respective Local Strategic Planning Statements when they are each up for renewal.

This action may also be capable of identifying changes to land use planning, which also assist the Region in meeting the needs of a growing population, and other changes precipitated by the energy transition underway in the Region's industry. This action has the potential to not only modify but also transform the Region's systems and the way planning controls are developed and implemented across the Region.



# ACTION B: FIRST NATIONS LAND MANAGEMENT PRACTICES

## Theme: Environmental



### Rationale

Identifying opportunities to collaborate with and learn from the First Nations community in the Region is key to improving drought resilience. Engagement with local First Nations stakeholders and community members identified multiple bespoke First Nations land management practices taking place across the Region, and there is an opportunity to adopt and expand these practices. With every drought different to the last, adopting a position of active listening to Country supports unique, respectful environmental protection.

Feedback highlighted that there are various First Nations land management practices currently conducted across the Region, but there is a lack of awareness amongst the broader community about what these practices involve and how they can be adopted. Nature resource stewardship was a key issue for many during workshops. Organisations and stakeholders who are already practicing cultural land management, including cool burning, identified during engagement sessions include Wanaruah Local Aboriginal Land Council and Wonnarua Nation Aboriginal Corporation who also works closely with Bindelong.

The critical component and first phase of this action is to work closely with identified stakeholders, such as those noted above, to determine how to engage and progress conversations about local First Nations land management practices, what they entail, the appropriateness of expanding the practices throughout the Region. It is important that the First Nations community is involved from the beginning, and that the most appropriate approach for this action is led by First Nations stakeholders. Once thorough and robust collaboration has been undertaken, this action would ultimately involve recognising the traditional land management practices in a formalised process that would allow widespread implementation and adoption.

This action will not only help to increase drought resilience through improved land management practices, but also create linkages with the local First Nations community to strengthen community cohesion. There may also be opportunities to leverage funding options from other stakeholders, such as universities, to expand this action further.

This action will seek to modify the system and has the potential to be transformative through the building and strengthening of relationships, as well as through the implementation of cultural land management practices to increase resilience throughout the Region.

### Timeframe

1-2 years

### Estimated Costs

\$50,000-\$100,000

### Action Owner

Singleton, Muswellbrook Shire, and Upper Hunter Shire Councils

### Stakeholders

Wanaruah Local Aboriginal Land Council, Wonnarua Nation Aboriginal Corporation / Bindelong

### Steps for Implementation

1. Develop and issue an RFQ for a contractor to develop the Drought Resilience Communications Plan.
2. Engage First Nations subcontractor to lead the engagement process with, ensuring time for meaningful consultation, First Nations in Wanaruah/Wonnarua Country and other stakeholders to capture projects currently underway in the Region.
3. Map a process for the implementation and adoption of First Nations land management projects throughout the Region incorporating research into what is being done in other areas of Australia.
4. Engage with potential "early adopter" landholders to ascertain how First Nations land management can be incorporated into their own practices.
5. Deploy First Nations land management projects according to the agreed process.

### KPIs

1. Percentage of First Nations entities engaged across the Region.
2. Number of First Nations projects identified.
3. Number of First Nations projects implemented throughout the Region.
4. Number of "early adopter" landholders engaged.

### Linkages to Existing Strategies

- Singleton Council and Community Emissions Reduction Action Plan 2023: Adopting First Nations land management activities could improve land use emissions, improving the Region's scope 1-3 emissions. Rehabilitation of mining land would also positively benefit the overall goals of this Plan.
- NSW Climate Change Adaptation Strategy: A return to traditional land management methods has the potential to significantly reduce climate change risks to the Region including drought.

### Resilience Dividend

- **Social** – increased partnerships and collaboration between First Nations stakeholders and community members, councils, and the broader community.
- **Economic** – increased financial sustainability of local residents, landholders and business owners through increased understanding of alternative land management practices to increase drought preparedness and resilience measures.
- **Environmental** – increased environmental prosperity through adoption of alternative land management practices to increase drought resilience.





## ACTION C: SUPPORTING OUR COMMUNITY GROUPS

### Theme: Social



#### Rationale

For those living on the land or not connected to town water, drought can be like running a marathon. After a full day of work, energy needs to be found to drive into town to cart water for beloved horses, cattle, or other farm animals. Finding fodder is an exercise in perseverance, ringing around to find bales, then stomaching their ever-rising cost. Creative approaches, like buying juicing carrots each day from the supermarket can add a few more options to the feed equation. Many don't think twice about the monetary cost and effort, such is the bond and connection they share with their animals.

For those operating horse agistment businesses, or running dozens of head of cattle, the quantities of feed and water needed are even greater. Whilst selling off cattle is an option for some, for others it can be difficult to contemplate losing bloodlines which have taken decades of work. Agistment businesses are in a similar position, not wanting to forego their customer base which has taken similar lengths of time to build.

Whilst these rural endeavours may be different, the people involved share a similar story of water and feed. Comfort, strength and hope can be gained by knowing that others are also doing it tough. Taking a break, catching up with friends, and engaging in an off-farm activity, can also provide a mental break. Even if it is just for a few short hours.

The Region is blessed with many diverse and passionate community groups. The level of innovation and creative approaches being applied to age-old problems is astounding. Some operate online, providing a virtual space to share drought stories and a marketplace for locally made items. Others are helping build resilience through our rural women, our youth, or even via locally grown produce. Meanwhile the volunteers from the pony-clubs, sporting teams, creative and environmental pursuits, enable all age groups to stay physically and mentally active. These groups create a sense of place for individuals and families, helping to foster positive emotional bonds with their community members. These social connections create a space for people to talk of shared hardships, offering a reminder that one is not alone in their drought journey.

Volunteers from these community groups spoke of ways they would like to improve their group, or their offerings. For

some it was about opening new chapters or widening the reach of their group, for others it was about ways to ease the burden on volunteers or deliver more to their audience. Volunteers typically wear multiple hats and are stretched thin. During a drought, attempts to fundraise mean asking more from the very same people trying to watch every last dollar they spend.

However, during the engagement for this Plan, we consistently heard that these community groups can deliver substantial gains for relatively small sums of money. That is, the return on investment for social capital and social connections is immense. These groups can then continue and expand on their role facilitating local people achieving self-help during times of drought. The benefits extend beyond drought: these groups deliver support and other in-kind assistance, through floods, bushfires, or other times of adversity. This action will seek to develop and deliver a grants program for community groups. In the process, the action will encourage trust, information sharing, and stronger networks between community members, partners, local government, and government agencies. This action builds on existing community strengths, seeking to ease the burden on volunteers as a way to increase their capacity. It is anticipated that this will slowly modify the existing system and create transformative change by supporting bottom-up change.

#### Timeframe

Ongoing

#### Estimated Costs

\$50,000-\$100,000 to be shared amongst groups

#### Action Owner

Singleton, Muswellbrook Shire, and Upper Hunter Shire Councils

#### Stakeholders

Community Groups. Businesses or industry groups who seek to support community resilience.

#### Steps for Implementation

1. Continuously scan for internal and external funding opportunities to support this action.
2. Develop a process, such as an expression of interest, to identify eligible groups and activities.
3. Incorporate considerations of diversity, equity, and inclusion (including varying levels of written and digital literacy) in the application and selection process.
4. Develop an evaluation framework, to develop a qualitative and quantitative evidence-base which demonstrates the tangible and in-tangible return on investment achieved by selected recipients.
5. Deliver the grant program with a view to establishing a recurring program.

#### KPIs

1. Number of applications received.
2. Number and diversity of recipients.
3. Demographics of residents supported by the recipient groups.
4. Value of in-kind contributions generated.
5. Levels of volunteering

#### Linkages to Existing Strategies

- Community Strategic Plans (Singleton Community Strategic Plan, Muswellbrook 2022-2032 Community Strategic Plan and 2032 Community Strategic Plan (Upper Hunter)): As key documents promoting community leadership, this action works to facilitate greater community cohesion and improve government transparency to support community decision making and projects.
- NSW State Disaster Mitigation Plan 2024-2026: Supporting Government's commitment community safety and resilience, this action works to foster greater opportunities to build drought resilience and reduce disaster impacts.

#### Resilience Dividend

- **Social** – Research indicates that the strength of community connections and their access to informal support is a key determinant in how quickly a community can recover from a disaster, such as drought.<sup>85</sup>
- **Economic** – A connected community is capable of drawing from its own wealth of knowledge and abilities in improving their drought preparedness, reducing the resultant financial impacts.

#### Complementary Actions

##### Facilitating Fit-for-Purpose Social Infrastructure

In our communities, it is our social infrastructure, such as community halls, which play a key role in a resilient community. These facilities are the venues for large and small gatherings, from games nights to festive dinners and parties. They are a place to connect with neighbours and friends, share stories, have fun, and de-stress. In times of drought, and other hardship, these facilities are also a crucial location for information sharing. With a facility nearby in every town and village, they are the primary meeting place for our rural communities. Before and during droughts (and other disasters) they act as the central hub where service providers and government agencies can meet with, and link residents with resources and support. Yet many of our facilities do not meet the needs of today, often with no internet or disabled access, non-water efficient appliances and toilets. We need to establish a baseline for each of these community facilities, and a plan on how to bring them up to a standard which reflects their status as key social infrastructure. Whilst Singleton Council and Muswellbrook Shire Council have already started this process, the Upper Hunter Shire Council is keen to follow suit. There is recognition, that the three councils can achieve economies of scale by working together, buying in bulk, or organising upgrades in a single package of work.

##### Furthering our Community's Journey to Mental Health and Wellbeing

Mental and physical health is a key concern for the community, with observations that drought family wellbeing is low and there is a sense of hopelessness within the community. For many, the prospect of drought is re-traumatising and causes significant stress. Helping the community to feel more mentally and physically prepared for drought and helping them to manage their wellbeing throughout drought is critical.

Through the community engagement period several local community organisations and support services who contribute to improving community mental health and wellbeing were identified. One group in particular was Where There's a Will, which 'exists to create a new normal where enhanced mental health and wellbeing allows our Upper Hunter community to thrive and flourish'.

Where There's a Will has already developed a range of positive education and learning initiatives specifically designed to be implemented in local schools for students and teachers. This complementary action would focus on Where There's a Will and their next steps in expanding their education program. It would involve engagement with the group to understand their action plan for future implementation of their program, and where the RDR Plan could assist in progressing the roll out of the program. This complementary action has the potential to modify the system in the first instance by building confidence, capacity and capability in relation to wellbeing, but may also transform the system by changing traditional attitudes towards mental health and wellbeing held and passed down through generations.

**Leveraging the Knowledge Held Within Our Community**

Engagement feedback identified the desire for greater peer to peer learning, where the community can learn from one another what works and what can be improved. Peer to peer learning can also contribute to social cohesion and improved mental health and wellbeing.

This complementary action would involve organising bus tours of key local industry enterprises, including tourism and accommodation ventures, winery operations, and cropping or grazing businesses. Participants can learn from each other, providing practical examples and advice to their peers, on what has worked to improve their financial viability or land management practices. For the wine and tourism industry, these tours would deliver co-benefits, improving the capacity of participants to cross promote each other's offerings to tourists. It would involve leveraging already established activities which may be run by Landcare or Local Land Services. This action would aim to modify the system, promoting a proactive approach to drought resilience and business prosperity.

**Grant Writing Toolkit**

Our community, business and environmental groups play a key role in helping our Region thrive. These groups spend countless hours fundraising, augmenting their finances with grants for specific projects, or equipment to support their activities. Each of our three councils already has a process in place to assist community, business and environmental groups find potential grant opportunities. Stakeholders also noted that there are other entities providing grant-writing support, however there is limited awareness of eligibility criteria and how to secure this assistance. Community volunteers expressed a desire for additional assistance via a grant-writing toolkit, which responded to a diversity of learning styles. Potential tool kit elements include in-person workshops, online or on-demand webinars, how-to-guides, information sheets detailing tips, tricks, templates, and sample responses and links to additional support.

**Leveraging our Biggest Industry for Enduring Community Benefit**

Mining and associated industries are a core part of our Region's identity. As our largest employers, these companies directly and indirectly support many of the small and medium businesses in our area. Many of our Region's mining companies have community support programs which provide grants, sponsorships, and other initiatives to assist local community groups and projects. Typically, these are conducted by individual companies, with no overarching regional approach. The mantra 'working together to achieve more' and 'building on existing activities' were two recurring themes of the community and stakeholder engagement conducted for this RDR Plan. An opportunity exists to leverage the existing relationships between the councils, local mining and associated companies (like the Upper Hunter Mining Dialogue, Transgrid, EnergyCo, Australian Rail Track Corporation (ARTC)), and the community. By working together there is potential to deliver some larger scale projects to achieve long-term and lasting social, environmental and/or economic benefits. A co-benefit of improved collaboration is to improve the two-way flow of information, particularly as it relates to rehabilitated and buffer land holdings as well as land managed for environmental offsets.



# ACTION D: ENSURING ECONOMIC PROSPERITY AS OUR REGION TRANSITIONS

## Theme: Economic & Social



### Rationale

Mining is the dominant employer in the Singleton, Muswellbrook, and Upper Hunter local government areas and occupies a significant land footprint. Historically, mining underpins our Region's prosperity, and prior to that it was agriculture, with energy continuing to be a focal point. Over the past decade or so, we have seen the Ashton North East, Drayton, Muswellbrook Coal and Liddell open cut mines cease production. The Liddell Power Station was decommissioned in 2023. These closures are often accompanied by job losses however we have seen staff redeployed from operational roles into mine rehabilitation and closure activities. However, others leave the area or pursue fly-in-fly-out/drive-in-drive-out opportunities to remain working in the mining sector. Further mine closures are predicted in coming years and decades as coal seams are exhausted, creating challenges around land allocations and economic prosperity for the Region.

However, out of closure can come opportunity to transition to new and emerging industries. In March 2024, the Federal Government unveiled their Solar Sunshot program, which will support the opening of a solar manufacturing facility at the Liddell site. During the engagement for this RDR Plan, community members and stakeholders spoke in positive terms of other potential uses for these former mining and energy sites. Future uses as diverse as water storages, pumped hydro 'big-batteries', to mountain bike parks were suggested. Others spoke of a desire to see the land returned to productive grazing or natural vegetation, and the potential for water entitlements from the Hunter River to be re-allocated. Each of these use cases has the potential to diversify the Region's economy. This means new jobs and new skills need to be acquired, but also necessitates land use, workforce, and economic development planning to ensure the right mechanisms are in place to support these changes. Much of this work is underway.

Beyond looking at what's possible and how to develop a workforce to leverage these new opportunities, we need to understand what these changes might mean for drought resilience. We know that mining operations are vulnerable to extended dry conditions and may have to suspend their operations in a severe drought. So even in the absence of change, our economy would benefit from diversification. Will these new industries place additional strain on our water resources? Will the transition free up water

allocations which can go back into our existing agricultural enterprises? Is there an opportunity for new agricultural endeavours such as intensive horticulture or value-adding through processing or manufacturing? Will the changes in our Region alter the forecasts for population growth and necessitate upgrades to our water infrastructure? Opportunities such as these offer the potential to address the deep-rooted challenges across the Region, such as the "difficulty in turning a profit", as identified during the community engagement phases of the RDR Plan project.

The Region's transition will result in rapid transformative change in a relatively short period of time. This action is simply the first of many steps. It is about defining the issue as it relates to drought and water availability, aligning with work already underway and making recommendations to inform the next stage in the journey, packaged into an economic futures water considerations strategy.

### Timeframe

1-2 years

### Estimated Costs

\$50,000-\$100,000 (for phase 1 only – problem definition and recommended next steps)

### Action Owner

Singleton, Muswellbrook Shire, and Upper Hunter Shire Councils

### Stakeholders

A comprehensive stakeholder mapping exercise forms part of the project implementation

### Steps for Implementation

1. Conduct a stakeholder mapping exercise to identify a comprehensive list of project stakeholders, sphere of control and influence, to determine desired level of project involvement.
2. Conduct future scenario planning to understand potential new and declining industries.
3. Map impact on water demand, potential for direct or indirect impacts on water availability, synergies and challenges with existing Integrated Water Management Plans.
4. Identify need for skill development to match with likely new or emerging agricultural industries.
5. Review existing planning policies to identify opportunities to attract or enable new industries.
6. Conduct community and stakeholder engagement to support steps 2 to 5.
7. Provide recommendations for next steps which are within council's control and sphere and influence.
8. Provide recommendations on partnerships, networks, and advocacy to further the Region's transition planning objectives.

### KPIs

1. Engagement activities conducted.
2. Potential changes in industries and employment mapped.
3. Agricultural skill needs assessment completed.
4. Water demand implications assessed.
5. Strategic partnerships developed.
6. Recommendations adopted.

### Linkages to Existing Strategies

- Socio-Economic Development Strategy 2020-2024: Providing strategic direction to ensure resources improve the liveability of the Singleton LGA, this Action relates to this strategy and should be incorporated to ensure drought resilience is a key economic consideration.
- 20-Year Economic Vision for Regional NSW (20-Year Vision) 2021: The NSW Government is working to make significant investments including health and regional liveability. This action will go towards achieving the goals of this Plan.

### Resilience Dividend

- **Economic** – A diverse economy with substantial water-independent industries will provide a financial buffer for the Region's residents and businesses during drought conditions.
- **Social** – Low unemployment, and a diversity of job opportunities for all skill levels, enables the community to be confident about their Region's liveability now and into the future.

### Complementary Actions

#### Improving Small Business Financial Viability

A consistent theme heard during the engagement period was the financial pressures experienced by small local businesses, including the increased cost of living and in particular, power prices. This was the case for tourism businesses, as well as agricultural enterprises which rely upon irrigation, with water pumps being energy intensive. Increased operating costs, reduces the financial buffers available to businesses to ride out the business downturn they may experience during a drought. We know that financial stress is a major contributing factor to declining mental health.

This complementary action would involve desktop research to identify available technology options relevant for the key local industries (wine, tourism, or grazing), such as solar power and battery storage, electric vehicle parking stations, solar water pumping, or automated farm water management. This information would then be converted into resources, information packs, webinars, or other capacity building mechanisms. This would be complemented by information on available financing mechanisms, such as green loans and grants. The action would provide an opportunity for each of the three councils to explore whether Environmental Upgrade Finance, through providers such as the Sustainable Australia Fund, are a good fit for their council and community, and a mechanism to overcome the upfront costs associated with energy and water efficiency upgrades.

This complementary action would aim to modify the system but could also contribute to council community emission reduction initiatives, which would have a transformative impact.

## ACTION E: FORWARD PLANNING AND HELPING OUR WATER USERS PREPARE FOR DRY TIMES

**Theme: Cross Cutting –  
Water Management**



### Rationale

The three councils in our Region are responsible for operating the water supply schemes which service the major townships of Scone, Aberdeen, Merriwa, Cassilis, Murrurundi, Muswellbrook, Denman, Sandy Hollow and Singleton. In the 2019/20 drought, the northern parts of our Region were particularly affected by dwindling water supplies. Water restrictions were also introduced in the Upper Hunter, Muswellbrook and Singleton Shires in response to the community's desire to 'do their fair share'. Water was trucked into Murrurundi until a new pipeline and pumping stations were built to transfer potable water to the town from Scone. The experience during this last drought demonstrated that our community is supportive of water conservation measures in our homes, local businesses, and in public spaces.

Action is already happening to improve the efficiency of our water supply system. Each of our Region's councils have welcomed state government funding to deliver leak detection programs across the water network. Not only do leaks represent lost water in our system, but they also represent an increase in the cost of production, given that every drop of water supplied to our customers' needs to be captured, treated, and pumped.

Whilst there is an intention to improve water use efficiency in other areas, multiple barriers exist. For our largest water users, the frequency of meter readings is insufficient to detect leaks in a timely fashion or to enable adaptive management of their consumption. With water being a relatively cheap commodity for industry and business, it has also not seen the attention to detail, that has been placed on electricity consumption. As a result, many big users have limited awareness of how much water they are using in different parts of their operations, although this is less of an issue in the Upper Hunter Shire Council area.

Population growth also creates notable challenges for the Region's water security risks, with water considered an expensive commodity beyond the spare capacity of most within the agricultural space. This creates rebound effects within the water market, with possible savings created within one sector potentially resulting in increased consumption and expansion within another. Given the multiple pathways that could drive increased water consumption, this could lead to indirect impacts and

substantial increases in demand on the potable, reticulated water system, at a time when the system is least able to cope. This is exacerbated by other factors such as industry growth, or ageing infrastructure.

Even our council facilities are not immune. We acknowledge the need to improve our own awareness of how water is being used in our own facilities which use large quantities of water. Once we know this information, we can develop a plan of action, making changes as finances allow. We also recognise the important role our local sporting fields, swimming pools, and community facilities play during times of drought. These are the places where our local community come to connect with friends and family, have fun, exercise, or simply take a break from the physical and mental demands of hand-feeding animals and other drought hardships. During the consultation for this Plan, we also heard how essential it was for residents to have access to a green or blue space, in the midst of dry, dusty and brown drought conditions.

The 2019/20 drought prompted a review of our Region's Drought Management Plan. In response to community feedback, we have simplified our water restrictions, and are keen to communicate these updates. We know that many in our community are already taking actions to conserve water, such as using water efficient front-loading washing machines. However, the online survey and street conversations undertaken for this RDR Plan indicate residents, particularly those connected to town water, would like to find out what other actions they can take before and during a drought. Information is also sought by those who rely on rain or bore water for their daily use.

This action consists of four parts, which can be implemented individually or as a singular package. The action seeks to modify our existing approach to water efficiency across three target audiences: our local businesses who consume large volumes of water within their asset or facility, our council facilities which consume large quantities of water, and our community, whose use when combined, represents the largest overall usage category. This action aims to address the multi-layered challenges surrounding water consumption and demand during dry times.

### Timeframe

3-6 months

### Estimated Costs

\$50,000-\$100,000

### Action Owner

Singleton, Muswellbrook Shire, and Upper Hunter Shire Councils

### Stakeholders

- Largest water users
- Council recreational and community facilities

### Steps for Implementation

#### Part A – Securing more granular data for our highest water users to improve interventions and management.

Part A aims to identify water consumption patterns to enhance the effectiveness of drought management strategies through detailed data collection via analysis of available technologies. Given water constraints during periods of drought, this action is born out of the necessity for efficient and targeted management of water resources. Understanding usage patterns in greater detail is essential for devising effective interventions, allowing for precision and customised solutions.

1. Conduct an analysis of available technology or other mechanisms which improve the frequency and granularity of water consumption data available for our Region's highest water users.
2. Conduct a multi-criteria analysis to evaluate the options against key factors, such as the capital and operational costs, maintenance and technical requirements, reliability, lifespan, and user-preferences.
3. Provide bespoke recommendations for each council, which reflect their current approach to water metering and other relevant factors.

#### Part B – Supporting our highest water users establish a baseline for their consumption.

Part B increases transparency and accountability within our high-water users across the Region. Through enhanced monitoring and informed decision-making, comprehensive data understanding and availability will allow real-time monitoring of water usage, enabling quicker responses to emerging issues and trends. The action also works to facilitate tailored water conservation strategies specific to the needs and operational context of each water user.

1. Review and update where necessary the template for Water Efficiency Management Plans for organisations to complete to ensure consistency across the Region.
2. Engage with high water users in relation to water efficiency management planning.

#### Part C – Developing Water Management Plans for councils' highest water using assets.

To effectively lead change across the Region, Councils will also be developing Water Management Plans for their high-water usage assets. This facilitates transparency and proactive accountability across the Region, ensuring water saving efforts are tailored to each identified asset, efficiently conserving water and maintaining essential services. This aims to increase the spare capacity and response options available to Council during drought events.

1. Audit high-water use council assets to understand where and how water is being used.
2. Identify existing water efficient practices in place and evaluate their effectiveness.
3. Identify and quantify options to improve water use efficiency, including any efficiencies in scale for adopting the same option across multiple assets within and across the three council areas.
4. Develop a Water Management Plan, including a monitoring, evaluation, and learning framework, for each of the audited assets.
5. Implement the Water Management Plans as funding becomes available.



## Part D – Develop a Drought Communication Strategy

To facilitate best practice and efficient improvements across the Region, a Drought Communication Strategy is recommended. Effective communication is crucial in managing the broad array of challenges arising from water management during drought. This action aims to inform, engage, and mobilise the community and stakeholders to mitigate the worst of these impacts.

1. Develop or update existing resources, such as fact sheets, short format videos or home water assessments, which articulate actions residents can take before and during a drought.
2. Develop key messages, collateral, and channels to support the communication of drought emergency response measures including:
  - a. Background and need for water conservation which reflects the various values the community places on water.
  - b. Details on each level of water restrictions.
  - c. What each council is doing to manage the water supply in their LGA.
  - d. The eligibility and process to obtain a water use exemption.
  - e. Where and how to access bulk water, for commercial carting operations and members of the public.
  - f. Community feedback, queries and reporting of non-compliance.
  - g. Where to find additional information.
3. Identify and include links to resources, in relation to actions local landholders can take before a drought, to provide water for their livestock, noting that this aspect of water management falls under the remit of NSW Local Land Services and NSW Department of Primary Industries and Regional Development, rather than councils.
4. Articulate the role for councils' reticulated water supply in supplying emergency water for livestock during a drought, where and how this water can be accessed and any other relevant information.

## KPIs

1. Number of high-water users engaged and percentage who baseline their operations.
2. Number and type of council facilities audited and subject to a Water Management Plan.
3. Water efficiency measures identified and implemented.
4. Lessons learned from the evaluation of existing water efficiency measures.
5. Development of a Drought Communication Strategy
6. Number of resources and type of collateral developed.
7. Media enquiries, news stories, social media hits, website interactions relating to the project components or materials developed.

## Linkages to Existing Strategies

- Integrated Water Cycle Management Strategy for each Singleton, Muswellbrook, and Upper Hunter LGA: Designed to encourage natural environmental water flows and water smart development, this action falls neatly within the remit of this existing strategy.
- Greater Hunter Regional Water Strategy: Designed to manage the Region's water needs and bolster future water security, this action will support the reduction of water consumption in line with this strategy.
- NSW Water Strategy 2021: Working to improve the state's water security, reliability, quality, and resilience, this action works to build upon existing work within this space, thereby supporting this strategy.

## Resilience Dividend

- **Environment** – Less water used in our network means more water available in the rivers, dams, and streams that our wildlife uses to survive, and we use for recreation, irrigation, and other uses.
- **Economic** – Every drop of drinking water used in our network must be captured, treated, and pumped which is a cost born by our councils and our users. For the end-user, saving water means saving money on water bills and, when water is heated, the savings in electricity can be substantial.
- **Social** – The act of voluntarily reducing ones' water consumption, sends a powerful message to those living on the land, or who are reliant on rainfall, that their community cares and is willing to work together through the hardships of drought.

## Complementary Actions

### Considering Social Value in the Integrating Planning and Reporting Framework

Communities (including residents, businesses, and landowners) relying on water resources and availability are placed under significant stress during drought, especially due to reduced water allocations and water restrictions. Improving water conservation behaviour in non-drought times is usually a good strategy to reduce reliance on potable water during droughts, however councils have noted that lower water usage may adversely impact council revenues from reduced water service charges. Council's rates are regulated by IPART, and in general, councils are cognisant of the impact of raising water charges through a request for Special Variation in rates.

Muswellbrook Shire and Singleton Councils already incentivise potable water conservation by residents, with lower rates payable for residential water consumption usage under 350kL each year (under 450kL/y for Muswellbrook and 350kL/y for Upper Hunter). This tariff threshold of 350kL – 450kL each year is significantly higher than average household usage. In 2021-22, the average amount of water used by households fell by 3%, from 181 to 175kL per household.<sup>86</sup>

This Action proposes a review of the residential water usage tariff thresholds and a cost benefit analysis of incentivising water conservation measures when offset against opportunities to defer capital and operating expenditures on water supply and treatment infrastructure.

The income that councils derive from water supply charges are 'ring fenced' for use on the operational, maintenance and capital expenditure needs related to those services and activities. This action recommends the conduct of a Social Return on Investment (SROI) Analysis in addition to a Cost Benefit Analysis (CBA) to estimate the social value of further investment in water conservation campaigns during non-drought periods. This can include a consideration of the following questions:

- What is the forecast revenue impact from reducing residential water consumption of Tier 1 water users (0 – 350 kL/y) by approx. 175 kL/y to align with NSW average?
- What is the forecast savings from deferring capex and opex savings on water infrastructure, due to reduced demand for water services due to water conservation behaviours?
- What is the social value (through financial proxies) that can be assigned to improved community resilience, to be incorporated in a business case for alignment with the IP&R framework?

Based on the outcomes of the business case, further consideration should be made on expanding the water savings campaign across all three council areas.

Muswellbrook Shire Council has a community awareness campaign that encourage water conservation, Singleton encourages permanent Water Wise rules and Upper Hunter has adopted the 'Blue House' program. Further investment in these campaigns, and introduction of such a campaign to the Upper Hunter LGA, combined with a three-tiered rate tariff will incentivise water conservation behaviours and reduce reliance on potable water for non-potable uses during drought.

### Improving Water Infrastructure to Enhance Regional Water Security

Throughout the engagement conducted for this Plan, it was apparent that residents take for granted that water will come out of their tap when they turn it on. In the last drought, Murrurundi residents experienced first-hand the devastating impacts to daily life which arise when a town runs out of water. The emotional toll on families, businesses, and even council staff was immense. Each of the three councils within this Region are required to manage the water infrastructure within their area. This infrastructure is a substantial network of pipes, pumps, and treatment plants, which enable water to be delivered to homes and businesses on the reticulated network. Whilst rainfall is free, the infrastructure is not, and neither is the maintenance, which runs into the millions of dollars each year. Each council has an Integrated Water Cycle Management Plan and like strategies for water security and the provision of appropriate, affordable, cost-effective, and sustainable urban water services that meet community needs and protect public health and the environment. These documents are dynamic and are reviewed by council and the Department of Climate Change, Energy, the Environment and Water. These evidence-based strategies identify key upgrades, modifications, and new pieces of infrastructure necessary to achieve water security in the short, medium, and long term. It is a priority for each council, and an expectation of their communities, that these water security works come to fruition.

### Improve Awareness of Compliance Regime for Water Taken from the Hunter River

The overwhelming majority of people and entities within our Region are doing the right thing, abiding by the rules and regulations which govern our water resources. However, there is a perception that a handful may be pushing the boundaries, or out-right flouting the rules and stealing water. A recurring theme evident in the community engagement conducted for this Plan, was the importance placed on fairness. This action will seek to leverage the Natural Resource Access Regulator's education and engagement services to assist stakeholders, including council staff, water users, and the general public, improve their understanding of water law, the compliance regime, and roles and responsibilities. This action will seek to modify the system.

# 07



## MONITORING, EVALUATION, AND LEARNING.

Monitoring, Evaluation, and Learning (MEL) Frameworks ensure existing programs can be assessed for their effectiveness and improved. By improving our drought resilience program, the Region will be able to further reduce future impacts from drought events, apply past lessons learned to maximise long-term sustainability, and ensure adaptive management.

To optimise effective MEL outcomes, MEL activities should be embedded within Council governance models at every stage of the RDR Plan program cycle (from initial implementation to close out phases). The intention of this RDR Plan and the proposed MEL processes allows for regular review and update by the PCG consortium and implementation partners to reflect changes. Through active learning and adaptive governance, best practice can be followed and encouraged across the Region.

This Plan's MEL process can be incorporated within the Integrated Planning and Reporting and/or Community Strategic Plan reporting across each Council (where funding and resource is available).

As a living document, this RDR Plan and MEL process will be reviewed and updated as drought conditions across the Region change, and our communities grow in their understanding of our drought vulnerabilities.

### ACHIEVING OUR GOALS

The Program Logic (in Section 6.1) describes the goals and strategic objectives, alongside what the Plan hopes to achieve over the short, medium, and long term.

## ASSESSING OUR PROGRESS

The Future Drought Fund's Monitoring, Evaluation, and Learning Framework 2020 establishes the RDRP Program's ongoing commitment to strengthened drought preparedness and resilience. In ensuring the Region achieves the intended goals of the Program, four focus areas should be considered and guide the program's evaluation questions, as shown below.

Table 7.1: Evaluation Focus (based on FDF's MEL Framework)<sup>87</sup>

Evaluation Focus	Key Guiding Questions
<b>Rationale/Appropriateness</b>	<ul style="list-style-type: none"> <li>To what extent are the RDRP programs aligned with the strategic objectives of the Funding Plan, and targeted at important needs?</li> <li>What can be done to improve the appropriateness of the RDRP investments?</li> </ul>
<b>Outputs/Efficiency</b>	<ul style="list-style-type: none"> <li>To what extent are the RDRP program outputs being administered and delivered efficiently, and to the expected quality?</li> <li>What can be done to improve efficiency of the RDRP investments?</li> </ul>
<b>Outcomes/Effectiveness</b>	<ul style="list-style-type: none"> <li>To what extent are the RDRP programs achieving their intended short-, medium-, and long-term outcomes (and any unintended outcomes)?</li> <li>What can be done to improve the outcomes of the RDRP investments?</li> </ul>
<b>Impact</b>	<ul style="list-style-type: none"> <li>What signs of progress are there towards long-term drought resilience?</li> <li>What priorities and opportunities do the programs reveal for drought resilience, future Funding Plans and programs?</li> </ul>

## OUR ROLES AND RESPONSIBILITIES

The Project Control Group (PCG) developed during the RDR Plan development phases of this project will continue to operate as a reference governance structure overseeing the RDR Plan implementation and ongoing development. The PCG is responsible for MEL processes through this framework. Key roles and responsibilities in relation to continued MEL are outlined within Table 7.2. It is expected that the PCG will remain in place, reconvening as required (expected to be quarterly, with a minimum of one meeting per quarter).

Table 7.2: PCG Roles and Responsibilities

Participant	Description of responsibilities
<b>Council consortium:</b> Singleton Council Muswellbrook Shire Council Upper Hunter Shire Council	<ul style="list-style-type: none"> <li>Singleton Council will remain as the lead council within the Region's consortium.</li> <li>Maintain monthly meetings assessing ongoing performance, steering action implementation, and sharing MEL outcomes.</li> <li>Manage and maintain budgets, timelines, and critical decision-making functions.</li> </ul>
<b>Department of Primary Industries and Regional Development</b>	<ul style="list-style-type: none"> <li>Following closure of the RDR Plan Development phase, it is expected that DPIRD will continue to be consulted throughout the implementation phase. The council consortium will continue to share lessons learned, MEL outcomes with DPIRD and other regions.</li> </ul>
<b>Any other individuals selected by the PCG</b>	<ul style="list-style-type: none"> <li>The selection process of suitable individuals is to be determined by the PCG. They could be key implementation partners, government departments/ authorities, community representatives, who will provide independent feedback and expertise provided on an as-need basis.</li> </ul>

Continuous monitoring, evaluation, and learning responsibilities will be shared amongst the Council consortium. During the implementation phase, councils will discuss and select appropriate governance arrangements for each action depending on the nature and coverage of the required work and management effort.

## DATA COLLECTION TOOLS

Collecting appropriate data and information throughout the delivery of RDR Plan is critical for a robust MEL process. Building on existing systems and processes at each Council (through the Integrated Planning and Reporting resources), tools and methods listed below were suggested to aid data collection and MEL reporting (Table 7.3). During the RDRP implementation phase, some lessons learned will be applied to update the tool list.

Key principles from the FDF MEL framework were used to inform the design and delivery of all MEL activities for this Plan:

- Utilisation-focused
- Cost-effective
- Fit-for-purpose
- Transparent and accountable
- Realistic timeframes and targets
- Flexible<sup>88</sup>

Table 7.3: Potential Tools

Data source/tool	Description	Collection frequency	Data availability
<b>End of activity assessment</b>	At the end of each action or project element, request feedback from stakeholders (such as the Upper Hunter Mining Dialogue) and implementation partners (e.g., Bindelong).	End of project element or end of action	Continuous and ongoing
<b>Information Management System</b>	Stores and enables analysis of basic information on participating stakeholders and community group members aligning with Council's Information Management Policy (e.g., Muswellbrook's Record Management Policy).	Ongoing	Real-time
<b>Media monitoring and media analytics</b>	Capture stories that are profiled in the media (e.g., the 98.1 Power FM radio station, Singleton Argus, Hunter River Times, etc.) about regional drought resilience and relevant actions. Capture insights from social media sites (e.g., Council Facebook pages) including engagement, reach, content performance, reactions, and audience demographics.	Quarterly	Available for traditional local media e.g. print (e.g., Singleton Argus), TV (e.g., the ABC) and radio (e.g., 2NM). Engagement tools embedded in social and online media.
<b>Community surveys</b>	Online or hard copy surveys sent to stakeholders and communities to gather feedback on the RDR Plan effectiveness (distributed within local community hubs such as the Singleton Library, Lioness Club of Muswellbrook, Muswellbrook Chamber of Commerce and Industry, Merriwa Country Women's Association). Potential to include drought resilience questions within existing council surveys (e.g. Community Strategic Plans).	Annually	Annually, one month after survey closes
<b>Monitoring visits</b>	Targeted monitoring visits to interview relevant stakeholders and communities to gather feedback in written report to support data assurance.	Every 6 months	One month after monitoring visit
<b>Case studies of changes</b>	Recording case studies of changes made and benefits accrued as a result of actions taken from the implementation of the Plan.	Annually	Annually
<b>Self-evaluation</b>	Self-reflection on progress to date, achievements and lessons learned by project leads and the Drought Resilience Project Control Group team, and implementing partners.	Quarterly	Quarterly, as a standing agenda item in scheduled project team meetings.

It is expected that these activities will provide the PCG with a deeper understanding of the successes of the RDR Plan and what can be improved. This works to ensure full and informed action planning for implementation of each action can be established.

Table 7.4: Indicators for Regular Monitoring of the RDR Plan

Action	ACTION A <b>COMPREHENSIVE DROUGHT COMMUNICATION PLAN</b>
<b>Vision</b>	For Singleton, Muswellbrook Shire and Upper Hunter Shire communities, drought resilience means we survive the negative impacts of dry times until they pass, ensuring we have opportunities to adapt and prosper. Our Region is future ready and has strategies in place in advance of challenging times, building upon existing strategies that have proven results. Our people and businesses are equipped with the knowledge and tools to adapt to changing circumstances. Our community is the foundation of our support network through their commitment, innovation, and resourcefulness. Our decision-making supports sustainable and healthy soil, water, and air. We approach our challenges in partnership, achieving strength in our unity.
<b>Inputs / Activities</b>	<ul style="list-style-type: none"> <li>• Hire contractor</li> <li>• Develop Drought Resilience Communications Plan</li> <li>• Consultation Manager program review</li> <li>• Build stakeholder database</li> </ul>
<b>Short Term Outcomes</b> (≤ 4 years)	<ul style="list-style-type: none"> <li>• Business owners across the Region actively pursuing opportunities to adopt better financial planning, income diversification, and utilisation of available grants, rebates, and financial support</li> <li>• Enhanced coordination and collaboration among government agencies (e.g., Hunter Local Land Services, NSW DroughtHub), stakeholders (e.g., Upper Hunter Community Services and Rural Support Services Network), and communities (e.g., residents) to facilitate a cohesive and integrated approach to drought response and resilience-building efforts</li> <li>• Support for community groups (e.g., Murrurundi Pony Club) resulting in delivery of social connection activities, reducing isolation and improving mental, physical, and spiritual wellbeing</li> <li>• Provision of psychosocial support services to help individuals, families, and communities cope with the stresses of drought</li> <li>• Strengthening of drought monitoring systems and early warning mechanisms to provide timely information to stakeholders (e.g., local farmers), enabling proactive drought response and management</li> </ul>
<b>Long Term Outcomes</b> (> 4 years)	<ul style="list-style-type: none"> <li>• The Region collaborates and works collectively within partnerships to build drought resilience across three pillars: economic, environmental, and social resilience</li> <li>• Stakeholders and communities proactively share knowledge and lessons learned, taking actions that contribute to drought resilience</li> </ul>
<b>Drought resilience benefits</b>	<ul style="list-style-type: none"> <li>• Increased understanding of support and services available (e.g., Upper Hunter Family Support Service)</li> <li>• Improved social connection</li> <li>• Increased uptake of support services (e.g., Mental Health Wellbeing Clinic Singleton)</li> <li>• Increased event/ activity attendance</li> <li>• Increased financial sustainability</li> <li>• Increased drought resilience understanding</li> <li>• Increased uptake of preparedness measures</li> </ul>
<b>Outputs</b>	<ul style="list-style-type: none"> <li>• Stakeholder database</li> <li>• Dedicated information portal</li> </ul>
<b>Goals</b>	<ul style="list-style-type: none"> <li>• Promote networking and collaboration among local businesses (e.g., Broke Fordwich Wine and Tourism Association)</li> <li>• Support our community groups to expand their reach and realise their goals</li> <li>• Enhance utilisation of available support services and resources</li> <li>• Enhance connections and collaborations across community groups and support services</li> <li>• Improve preparedness and planning for future periods of reduced water availability</li> </ul>
<b>Specific Indicators</b>	<ul style="list-style-type: none"> <li>• Number of stakeholders added to database</li> <li>• Stakeholders reached using existing channels</li> <li>• Number of existing activities and events leveraged to promote drought resilience and participant numbers (e.g., Cassilis Rodeo)</li> <li>• Number of social media posts, council website updates, and newsletters (e.g., the Singleton Edit) and rates notices distributed</li> <li>• Number of visits to information portal</li> <li>• Number of downloads from information portal</li> <li>• Level of uptake of support and services</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>• Stakeholders are willing to collaborate and share information across the Region</li> <li>• People wish to be connected to available information and resources</li> </ul>

**Action ACTION B FIRST NATIONS LAND MANAGEMENT PRACTICES**

<b>Inputs / Activities</b>	<ul style="list-style-type: none"> <li>Hire First Nations consultation subcontractor</li> <li>Conduct meaningful consultation</li> </ul>	<ul style="list-style-type: none"> <li>Map methodology for implementation</li> <li>Engage potential "early adopters"</li> </ul>
<b>Short Term Outcomes</b> (≤ 4 years)	<ul style="list-style-type: none"> <li>Maintained amenity and performance of recreational spaces and public open greenery, enabling residents to undertake activities which beneficially impact physical and mental wellbeing</li> <li>Bolstered traditional cultural caring methods implemented across the Region with improved environmental practices, resulting in reduced water stress during drought</li> <li>Instils a sense of shared environmental responsibility and natural resource stewardship through drought education, providing lasting positive impacts on local natural ecosystems</li> </ul>	
<b>Long Term Outcomes</b> (> 4 years)	<ul style="list-style-type: none"> <li>Stakeholders and communities proactively share knowledge and lessons learned, taking actions that contribute to drought resilience (e.g., Hunter Local Land Services, Hunter Region Landcare Network)</li> <li>The Region collaborates and works collectively within partnerships to build drought resilience across three pillars: economic, environmental, and social resilience</li> </ul>	
<b>Drought resilience benefits</b>	<ul style="list-style-type: none"> <li>Increased partnership and collaboration</li> <li>Increased financial sustainability</li> <li>Increased alternative land management practice adoption</li> </ul>	<ul style="list-style-type: none"> <li>Increased drought preparedness and resilience measures</li> <li>Increased environmental prosperity</li> </ul>
<b>Outputs</b>	<ul style="list-style-type: none"> <li>First Nations cultural land management activities undertaken across the Region</li> <li>Collaboration between First Nations stakeholders and community members</li> <li>Cross-organisational collaboration</li> </ul>	
<b>Goals</b>	<ul style="list-style-type: none"> <li>Build the capacity of individuals and small business to take ownership of drought resilience</li> <li>Enhance connections and collaborations across community groups and support services (e.g., Bindelong, Wonnarua Nation Aboriginal Corporation)</li> <li>Promote increased adoption of drought resilient and sustainable land management practices</li> </ul>	
<b>Specific Indicators</b>	<ul style="list-style-type: none"> <li>Percentage of First Nations entities engaged across the Region</li> <li>Number of First Nations projects identified</li> <li>Number of First Nations projects implemented throughout the Region</li> <li>Number of "early adopter" landholders engaged (e.g., local farmers)</li> </ul>	
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>First Nations people are willing to engage and share knowledge</li> <li>Organisations already practicing cultural land management have capacity to train and undertake further work</li> <li>Community members/ stakeholders are willing to adopt suggestions</li> </ul>	

**Action ACTION C SUPPORTING OUR COMMUNITY GROUPS**

<b>Inputs / Activities</b>	<ul style="list-style-type: none"> <li>Identify funding opportunities</li> <li>Develop evaluation framework</li> </ul>	<ul style="list-style-type: none"> <li>Deliver grant program</li> </ul>
<b>Short Term Outcomes</b> (≤ 4 years)	<ul style="list-style-type: none"> <li>Promotional support existing for "buy local" strategies (e.g., 'We LIVE Here' local investment cards) that increase and sustain local businesses</li> <li>Enhanced coordination and collaboration among government agencies, stakeholders, and communities (e.g., Mens Shed, Lions Club of Muswellbrook) to facilitate a cohesive and integrated approach to drought response and resilience-building efforts</li> <li>Support for community groups resulting in delivery of social connection activities, reducing isolation and improving mental, physical, and spiritual wellbeing</li> <li>Improved collaboration and support, with mutual resource sharing, increasing community social cohesion and uptake/awareness of available services and initiatives run throughout the Region</li> <li>Provision of psychosocial support services (e.g., Upper Hunter Youth Services) to help individuals, families, and communities cope with the stresses of drought</li> </ul>	
<b>Long Term Outcomes</b> (> 4 years)	<ul style="list-style-type: none"> <li>There is a common understanding and a shared vision in the Region managing drought risks and build community drought resilience</li> <li>The Region collaborates and works collectively within partnerships to build drought resilience across three pillars: economic, environmental, and social resilience</li> </ul>	<ul style="list-style-type: none"> <li>Measures are implemented to limit impacts of drought and better coordinate and respond to drought events and incidents</li> <li>Stakeholders and communities proactively share knowledge and lessons learned, taking actions that contribute to drought resilience</li> </ul>

<b>Drought resilience benefits</b>	<ul style="list-style-type: none"> <li>Strengthened community connection and access to information</li> <li>Connected community capable of drawing on its wealth of knowledge and abilities in improving drought preparedness and reduced financial impacts</li> </ul>	
<b>Outputs</b>	<ul style="list-style-type: none"> <li>Grant writing toolkit</li> </ul>	<ul style="list-style-type: none"> <li>Grant program</li> </ul>
<b>Goals</b>	<ul style="list-style-type: none"> <li>Leverage changes in our Region to diversify our economy and employment opportunities</li> <li>Promote networking and collaboration among local businesses</li> <li>Build the capacity of individuals and small business to take ownership of drought resilience.</li> <li>Promote mental and physical wellbeing across all generations</li> <li>Support our community groups to expand their reach and realise their goals</li> </ul>	
<b>Specific Indicators</b>	<ul style="list-style-type: none"> <li>Number of applications received</li> <li>Number and diversity of recipients</li> <li>Demographics of residents supported by the recipient groups</li> </ul>	<ul style="list-style-type: none"> <li>Value of in-kind contributions generated</li> <li>Levels of volunteering</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>Community willingness to collaborate</li> </ul>	<ul style="list-style-type: none"> <li>Community can do lots with limited funding</li> </ul>

**Action ACTION D ENSURING ECONOMIC PROSPERITY AS OUR REGION TRANSITIONS**

<b>Inputs / Activities</b>	<ul style="list-style-type: none"> <li>Stakeholder mapping</li> <li>Future scenario planning around key and emerging industries</li> </ul>	<ul style="list-style-type: none"> <li>Mapped water demand impact</li> <li>Existing policy review</li> <li>Community and stakeholder engagement</li> </ul>
<b>Short Term Outcomes</b> (≤ 4 years)	<ul style="list-style-type: none"> <li>Thriving, supported businesses with minimal impacts from economic shocks or disruptions with minimal losses or sudden layoffs</li> <li>Reduced widespread unemployment and associated social and economic impacts</li> <li>Business owners actively pursuing opportunities to adopt better financial planning, income diversification, and utilisation of available grants, rebates, and financial support</li> </ul>	
<b>Long Term Outcomes</b> (> 4 years)	<ul style="list-style-type: none"> <li>A diversified local economy</li> <li>The Region collaborates and works collectively within partnerships (e.g., like the Scone Chamber of Commerce) to build drought resilience across three pillars: economic, environmental, and social resilience</li> </ul>	
<b>Drought resilience benefits</b>	<ul style="list-style-type: none"> <li>A diverse economy with substantial water-independent industries providing a financial buffer for residents and businesses during drought conditions</li> <li>Low unemployment, job opportunity diversity (for a range of skill levels), enabling community confidence, particularly around the Region's liveability</li> </ul>	
<b>Outputs</b>	<ul style="list-style-type: none"> <li>Identified transition opportunities attracting new industries (like the Hunter Energy Hub at the retired Liddell Power Station)</li> </ul>	<ul style="list-style-type: none"> <li>Next steps recommendations on partnerships, networks, and advocacy to further the Region's transition planning objectives</li> </ul>
<b>Goals</b>	<ul style="list-style-type: none"> <li>Diversify our farm enterprises and identify new agricultural opportunities</li> <li>Leverage changes in our Region to diversify our economy and employment opportunities</li> <li>Promote networking and collaboration among local businesses</li> <li>Build the capacity of individuals and small business to take ownership of drought resilience</li> </ul>	
<b>Specific Indicators</b>	<ul style="list-style-type: none"> <li>Engagement activities conducted</li> <li>Potential changes in industries and employment mapped</li> <li>Agricultural skill needs assessment completed</li> </ul>	<ul style="list-style-type: none"> <li>Water demand implications assessed</li> <li>Strategic partnerships developed</li> <li>Recommendations adopted</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>Ongoing economic prosperity of the mineral extraction industry</li> <li>Community desire to utilise coal mining funding</li> <li>Willing support from community to transition to alternative industries</li> </ul>	



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<b>ACTION E FORWARD PLANNING AND HELPING OUR WATER USERS PREPARE FOR DRY TIMES</b>	
<b>Inputs / Activities</b>	<ul style="list-style-type: none"> <li>Technology analysis relating to water consumption data</li> <li>Multi-criteria analysis and evaluation</li> <li>Water meter recommendations</li> <li>Template Water Efficiency Management Plans</li> <li>Council asset audits</li> <li>Develop messaging and update existing communication resources relating to drought emergency response measures</li> </ul>
<b>Short Term Outcomes</b> (≤ 4 years)	<ul style="list-style-type: none"> <li>Maintained amenity and performance of recreational spaces and public open greenery, enabling residents to undertake activities which beneficially impact physical and mental wellbeing</li> <li>Improved water efficiency with reduced reliance on non-potable and potable water supplies from the Region's water storage dams and aquifers</li> <li>Improved water management practices helping to ensure community water supplies are reliable and accessible during water shortage periods, therefore enhancing public health and wellbeing</li> <li>Instils a sense of shared environmental responsibility and natural resource stewardship through drought education, providing lasting positive impacts on local natural ecosystems</li> <li>Implementation of short-term water conservation measures such as restrictions on non-essential water usage, promoting efficient irrigation techniques, and repairing leakages to preserve water resources</li> <li>Strengthening of drought monitoring systems and early warning mechanisms to provide timely information to stakeholders (e.g., local farmers), enabling proactive drought response and management</li> </ul>
<b>Long Term Outcomes</b> (> 4 years)	<ul style="list-style-type: none"> <li>There is a common understanding and a shared vision in the Region managing drought risks and build community drought resilience</li> <li>The Region collaborates and works collectively within partnerships to build drought resilience across three pillars: economic, environmental, and social resilience</li> </ul>
<b>Drought resilience benefits</b>	<ul style="list-style-type: none"> <li>Less water utilised across the network meaning increased water availability for our natural systems</li> <li>Water saving (and therefore monetary savings)</li> <li>Collective efforts to reduce water consumption showing communal care for those living through the hardships of drought</li> </ul>
<b>Outputs</b>	<ul style="list-style-type: none"> <li>Social value considered within the IP&amp;R Framework</li> <li>Improved water infrastructure</li> <li>Improved Hunter River Water Regime Compliance</li> <li>Drought Communication Strategy</li> <li>Water Management Plans developed for councils' highest water using assets</li> <li>Established water consumption baselines</li> <li>Granular water consumption data</li> </ul>
<b>Goals</b>	<ul style="list-style-type: none"> <li>Ensure efficient water management especially in times of drought</li> <li>Promote increased adoption of drought resilient and sustainable land management practices</li> <li>Improve preparedness and planning for future periods of reduced water availability</li> </ul>
<b>Specific Indicators</b>	<ul style="list-style-type: none"> <li>Number of high-water users engaged and percentage who baseline their operations</li> <li>Number and type of council facilities audited and subject to a Water Management Plan</li> <li>Water efficiency measures identified and implemented</li> <li>Lessons learned from the evaluation of existing water efficiency measures</li> <li>Development of a Drought Communication Strategy</li> <li>Number of resources and type of collateral developed</li> <li>Media enquiries, news stories, social media hits, website interactions relating to the project components or materials developed</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>Stakeholder willingness to reduce water consumption</li> <li>Funding availability</li> <li>Efficacy of existing drought related resources</li> <li>Water consumption data and availability for baselining exercise</li> </ul>

## REPORTING AND ACCOUNTABILITY OBLIGATIONS

Delivery of MEL processes for this RDR Plan will be informed by and aligned with the councils respective Integrated Planning and Reporting (IPR) Framework. Data will be collected during implementation of the RDR Plan, ensuring data collection is interwoven within PCG planning and review meetings to enable adaptive learning. Drought resilience will be canvassed as part of the Community Strategic Plans (CSPs) context. For example, drought resilience can be canvassed within the community engagement conducted for the development of the CSPs, and actions identified for the CSPs can be cross mapped for their alignment with drought resilience objectives. Incorporation of knowledge gained throughout implementation could be made with via the annual report, with mid-term progressions and end of progress tracked to maximise MEL processes. Recognising the differing maturity levels across councils, this may look different across each council within the PCG.



## RISKS IN EFFECTIVELY DELIVERING OUR MEL FRAMEWORK AND RDR PLAN

The following risks have been identified as possible barriers to effective implementation of the Plan, based on key risks from the Future Drought Fund MEL framework for the RDR Plan in consultation with stakeholder input during the engagement program. Suggested risk mitigation measures will be dependent on Council resources and funding availability.

Table 7.5: Risks to Our RDR Plan Delivery

Risk	Risk Rating	Suggested Mitigating Measures
Lack of resources, capability, appropriate government mechanisms to coordinate strategic planning activities and insufficient funding to implement planned actions	High	<ul style="list-style-type: none"> <li>Lobby government for ongoing seed funding</li> <li>Develop long-term financial plans to ensure sustainable funding for planned actions</li> <li>Explore options for alternative funding sources such as grants</li> </ul>
Insufficient capacity of regional stakeholders to actively participate in the Plan	High	<ul style="list-style-type: none"> <li>Canvas potential action owners and ensure selected participants are aware of the project burdens (e.g., First Nations locals responsible for Action B – First Nations Land Management Practices)</li> <li>Provide resources and funding where possible to support ongoing buy-in and support</li> </ul>
Insufficient feedback to community	Medium	<ul style="list-style-type: none"> <li>Develop annual MEL report to improve transparency of the RDRP program</li> <li>Utilise existing communication channels (digital platforms such as council websites, mobile apps, social media, regular newsletters, community meetings) to provide forums for discussion and timely, transparent updates on council activities and decisions</li> <li>Develop and utilise structured feedback mechanisms such as community surveys</li> </ul>
Actions identified by community within this Plan are insufficient in making positive drought resilience changes across the Region	Medium	<ul style="list-style-type: none"> <li>Implement MEL processes to proactively manage and adjust priority actions under the program to ensure actions are continually tailored to the needs of the Region</li> <li>Continually update and conduct a detailed needs assessment to understand specific vulnerabilities and strengths of the Region (the Resilience Assessment)</li> <li>Ensure actions are evidence-based, backed up by best practice and proven strategies that work within other Regions with similar challenges</li> <li>Prioritise inter-regional collaboration to share knowledge, resources, and best practice</li> </ul>
There are insufficient learnings to inform future program design and implementation	Medium	<ul style="list-style-type: none"> <li>Establish clear objectives (following the SMART technique, specific, measurable, achievable, relevant, time-bound) for the RDR Plan and MEL framework</li> <li>Measure identified KPIs aligning with each key priority action and track progress to measure success</li> <li>Ensure sufficient regular data collection is gathered throughout the Plan's implementation phase</li> <li>Foster a culture of continued learning, utilise technology where possible, engage stakeholders, implement pilot programs, and document/report program activities, outcomes, and lessons learned</li> </ul>
PCG members are unable to agree on, or successfully implement lessons learned from MEL	Medium	<ul style="list-style-type: none"> <li>The MEL framework articulates the governance responsibilities of each PCG member as part of this program. Regular monitoring and lessons learned is agreed to as part of membership to the RDRP program. Using agreed program-level MEL indicators aligned to the Region will ensure members are in the best position to agree on and implement MEL lessons learned</li> </ul>

Risk	Risk Rating	Suggested Mitigating Measures
Data used within the MEL process is unavailable (either does not exist, is restricted, or is not available within a timely manner)	Medium	<ul style="list-style-type: none"> <li>High-level indicators have been selected based on their existence, ensuring data can be regularly monitored over the long-term. KPIs have also been elected based on this principle</li> <li>Appropriate oversight from the PCG and FDF will maintain oversight of regular reporting made. High-level indicators have been selected and should be collected using standard methods of sufficient sample sizes</li> </ul>
Data is of poor quality or is untrustworthy	Medium	<ul style="list-style-type: none"> <li>High-level indicators have been selected based on their existence, ensuring data can be regularly monitored over the long-term. KPIs have also been elected based on this principle</li> <li>Appropriate oversight from the PCG and FDF will maintain oversight of regular reporting made. High-level indicators have been selected and should be collected using standard methods of sufficient sample sizes</li> </ul>
Insufficient regional stakeholders are willing to cooperate with each other on drought regional resilience planning issues	Low	<ul style="list-style-type: none"> <li>Provide workshops and training to educate community on the Plan and ways to get involved (e.g., RDR Plan launch events)</li> <li>Encourage community members to participate, with appropriate follow-up via stakeholder databases developed/maintained across the Region</li> <li>Regularly update community on wins gained under the RDR Plan</li> </ul>
Program design is insufficient to give regional stakeholders opportunities to identify and communicate regional drought resilience needs	Low	<ul style="list-style-type: none"> <li>Implement appropriate MEL processes such as community surveys, monitor media outputs and feedback received by stakeholders to proactively encourage community buy-in</li> </ul>
Program fails to align with other relevant strategic plans across the Region	Low	<ul style="list-style-type: none"> <li>Implement appropriate MEL processes to ensure integration across each council (recommended within CSPs and IP&amp;R Frameworks at a minimum)</li> </ul>
Regional communities are not motivated to take ownership of completed Plans nor actively seek to implement them	Low	<ul style="list-style-type: none"> <li>Provide workshops and training to educate community on the Plan and ways to get involved</li> <li>Encourage community members to participate, with appropriate follow-up</li> <li>Regularly update community on wins gained under the RDR Plan</li> </ul>
Stakeholders and community are unwilling to share lessons learned with other regions	Low	<ul style="list-style-type: none"> <li>Regularly engage with the community to build trust and demonstrate the benefits of knowledge sharing</li> <li>Be transparent around how shared lessons will be used positively to impact other regions</li> <li>Share success stories from other regions that have benefited from shared lessons to illustrate tangible benefits</li> <li>Develop and/or utilise user-friendly platforms (such as online portals, radio etc) to share lessons learned</li> </ul>
Insufficient opportunities for the Region to implement elements of the Plan	Low	<ul style="list-style-type: none"> <li>Ensure regular PCG meetings to identify stakeholders and regional collaborations allowing for resource and knowledge sharing</li> <li>Regularly review Plan progressions and ensure inclusive participation is encouraged across the Region</li> </ul>
Region fails to continue to review, update, and implement its Plan	Low	<ul style="list-style-type: none"> <li>Regular MEL meetings conducted by PCG members to ensure accountability and momentum gained during the RDRP process is maintained</li> </ul>

These risks will be continually reviewed and updated during the implementation phase to reflect changes and identify further intervening measures to reduce residual risks to the RDRP program delivery. Risk ratings are defined below:

- High:** High probability of occurring with significant negative impacts to the RDRP program delivery.
- Medium:** Moderate probability of occurring with noticeable (though manageable) impact to the RDRP program delivery.
- Low:** Low probability of occurring with minimal impact to the RDRP program delivery.

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