Adelaide Hills
COUNCIL

NOTICE OF SPECIAL MEETING

To: Mayor Bill Spragg

Councillors	Ward
Councillor Ron Nelson Councillor Jan-Claire Wisdom	Manoah
Councillor Ian Bailey Councillor Jan Loveday	Marble Hill
Councillor Kirrilee Boyd Councillor John Kemp Councillor Nathan Daniell	Mt Lofty
Councillor Andrew Stratford Councillor Lynton Vonow	Onkaparinga Valley
Councillor Linda Green Councillor Malcolm Herrmann	Torrens Valley

Notice is hereby given pursuant to the provisions under Section 82 of the Local Government Act 1999 that a Special meeting of the Council will be held on:

Tuesday 19 June 2018
7.30pm
63 Mt Barker Road Stirling

Business of the meeting:

1. Corporate Planning & Reporting Framework
2. Revocation of Community Land – Lobethal Retirement Village
3. GRFMA – Northern Floodway Project
4. CWMS EOI Outcomes (Confidential)

A copy of the Agenda for this meeting is supplied under Section 83 of the Act.

Meetings of the Council are open to the public and members of the community are welcome to attend. Public notice of the Agenda for this meeting is supplied under Section 84 of the Act.

Andrew Aitken
Chief Executive Officer

Adelaide Hills
COUNCIL

AGENDA FOR SPECIAL MEETING

Tuesday 19 June 2018
7.30pm
63 Mt Barker Road Stirling

ORDER OF BUSINESS

Council Vision
Nurturing our unique place and people

Council Mission
Delivering activities and services which build a resilient community, sustain our built and natural environment and promote a vibrant economy

1. COMMENCEMENT

2. OPENING STATEMENT

"Council acknowledges that we meet on the traditional lands of the Peramangk and Kaurna people and we recognise their connection with the land.

We understand that we do not inherit the land from our ancestors but borrow it from our children and in this context the decisions we make should be guided by the principle that nothing we do should decrease our children's ability to live on this land."

3. APOLOGIES/LEAVE OF ABSENCE

3.1. Apology

3.2. Leave of Absence

4. DECLARATION OF INTEREST BY MEMBERS OF COUNCIL

Adelaide Hills
COUNCIL

AGENDA FOR SPECIAL MEETING

Tuesday 19 June 2018
7.30pm
63 Mt Barker Road Stirling

5. BUSINESS OF THE MEETING

5.1. Revocation of Community Land – Lobethal Retirement Village

1. *That the report be received and noted*
2. *A report be prepared and submitted to the Minister for Planning seeking approval to revoke the community land classification of Allotment 202 in Deposited Plan No. 75850 contained in Certificate of Title Volume 6017 Folio 705 known as 3 Jeffrey Street Lobethal.*

5.2. Corporate Planning & Reporting Framework

1. *That the report be received and noted*
2. *With an effective date of 1 July 2018, to adopt the draft Corporate Planning & Performance Framework contained in Appendix 1.*

5.3. GRFMA – Northern Floodway Project

1. *That the report be received and noted.*
2. *That the Gawler River Flood Management Authority is advised that Council is committed to and supports the progression of the Northern Floodway Project subject to the planning, design and construction being funded entirely by the Federal and State Governments, with the ongoing maintenance of the Project being funded by the GRFMA via subscriptions from Constituent Councils.*

6. CONFIDENTIAL ITEM

6.1. Community Wastewater Management Systems EOI Outcomes

7. CLOSE SPECIAL COUNCIL MEETING

ADELAIDE HILLS COUNCIL
SPECIAL COUNCIL MEETING
Tuesday 19 June 2018
AGENDA BUSINESS ITEM

Item:	**5.1**
Originating Officer:	**Natalie Westover, Manager Property Services**
Responsible Director:	**Terry Crackett, Director Corporate Services**
Subject:	**Revocation of Community Land – Lobethal Retirement Village**
For:	**Decision**

SUMMARY

The purpose of this report is to seek a resolution of Council to prepare and submit a report to the Minister for Planning seeking approval to revoke the community land classification of Allotment 202 in Deposited Plan No. 75850 contained in Certificate of Title Volume 6017 Folio 705 known as 3 Jeffrey Street Lobethal ("Land") refer ***Appendix 1***.

RECOMMENDATION

Council resolves:

1. **That the report be received and noted**
2. **A report be prepared and submitted to the Minister for Planning seeking approval to revoke the community land classification of Allotment 202 in Deposited Plan No. 75850 contained in Certificate of Title Volume 6017 Folio 705 known as 3 Jeffrey Street Lobethal.**

---

1. GOVERNANCE

- **Strategic Management Plan/Council Policy**

Goal	Organisational Sustainability
Strategy	Risk & Responsibility - Legal Compliance

The incompatibility of the provisions of the *Local Government Act 1999* and the *Retirement Villages Act 2016* mean that Council currently breaches the requirements of section 202 of the *Local Government Act 1999* when granting an occupation agreement under the *Retirement Villages Act 1999.*

➢ **Legal Implications**

Under Section 202 of the *Local Government Act 1999*, Council cannot lease community land for a term exceeding a total of 42 years which is inconsistent with the *Retirement Villages Act 2016* which grants lifetime security of tenure to residents.

Also under Section 202 Council cannot lease community land for a term of greater than 5 years without first undertaking a public consultation process.

Occupation agreements issued pursuant to the *Retirement Villages Act 2016* are for a non-defined term which can be greater than 5 and 42 years at the option of the tenant.

The issuing of occupation agreements for a retirement village unit for a term greater than a total of 42 years and without conducting public consultation for terms greater than 5 years may result in the occupation agreement being invalid. Whilst we do not expect that this presents any immediate concerns, it is a less than ideal position for both the Council and the residents.

Undertaking a public consultation process in relation to a retirement village unit requires the disclosure of information in relation to the proposed lease which creates difficulties in maintaining the privacy of the proposed tenant.

➢ **Risk Management Implications**

The revocation of community land will assist in mitigating the risk of:

> *Non-compliance with legislation leading to possible invalidity of occupation agreements.*

Inherent Risk	Residual Risk	Target Risk
Extreme (3A)	Low (1E)	Low (1E)

The mitigation action is specific to this circumstance as all other retirement villages owned by Council were excluded as community land in 2002.

➢ **Financial and Resource Implications**

Not Applicable

➢ **Customer Service and Community/Cultural Implications**

Not Applicable

➢ **Environmental Implications**

Not Applicable

- **Engagement/Consultation conducted with Council Committee, Regional Subsidiary, Advisory Group, the Administration and Community**

Community consultation was undertaken in accordance with the Council's *Public Consultation Policy*.

Council Committees: Not Applicable

Council Workshops: Not Applicable

Advisory Groups: Not Applicable

Administration: Not Applicable

Community: Community consultation was conducted between 18 April and 18 May 2018 and included:

- advertisements in the Courier and Weekender Herald newspapers in the week commencing 16 April 2018
- on the Council's website
- consultation report available on the Council's website and at customer service centres
- letters to residents of the Lobethal Retirement Village
- meeting at the Lobethal Retirement Village on 8 May between 10:30am and 11:30am to answer questions or concerns

2. BACKGROUND

With the commencement of the *Local Government Act 1999*, councils were required to make an assessment of all of their land holdings to determine what was to be included on the newly required Community Land Register.

Council had until 31 December 2002 to exclude specific parcels of land from their Community Land Register, with all remaining parcels of land in council ownership or under their care, control and management deemed to be community land.

On 20 June 2000, Council resolved:

16.5.5. Community Land Register – Aged Accommodation & Residential Properties
5/14/003 Don Rabbah

Moved Cr Stan Evans S/- Cr Val Hall	Carried (294)

That in accordance with the Local Government Act 1999, Council initiate proceedings to allow land under Council's residential properties and aged accommodation to be removed from Council's Community Land Register.

On 13 September 2000, Council wrote to the South Australian Housing Trust ("SAHT"), as the leaseholder of 6 units, seeking their consent to exclude the Lobethal Retirement Village as community land. SAHT confirmed their consent by letter dated 6 October 2000.

Council wrote to the Local Government Association and the Office for Local Government on 25 July 2001 expressing their concerns of the inclusion of retirement villages as community land and sought an exemption for retirement villages. An exemption was not provided or included in the Regulations which created an issue for all councils who own retirement villages.

Legal advice received on 27 October 2000 indicated that the existence of the joint venture agreement with SAHT had the effect of the Lobethal land being one of the few exclusions to the definition of community land, however this agreement did not specify if that exemption applied to the whole of the land in the title, or just the 6 units subject to the joint venture arrangement.

At that time, Council proceeded to exclude the other retirement villages as community land but not Lobethal. The result was that the Lobethal Retirement Village was automatically included on the Community Land Register given it was not 'excluded'.

Council obtained legal advice in 2010 which recommended that the Council revoke the community land classification of the Lobethal Retirement Village to deal with the above difficulties and to ensure that occupation agreements issued to residents were valid. This has not been progressed to date.

Following the discovery that the Lobethal Retirement Village has remained on the Community Land Register, Council staff undertook a review of the following:

- the Community Land Register and associated Community Land Management Plans
- the various Council decisions since 2000
- legal advice obtained since 1999, and
- obtained new advice to confirm whether or not the 6 units subject to the agreement with SAHT are exempt as community land.

The analysis of all of the above indicates that the appropriate course of action for Council to ensure that occupation agreements issued to residents of the Lobethal Retirement Village pursuant to the *Retirement Villages Act 2016* (and superseded Acts) are valid and secure, is to revoke the community land classification of the land located at 3 Jeffrey Street Lobethal.

Council resolved on 27 March 2018 to consult with the community in relation to the revocation proposal.

12.2. Revocation of Community Land – Lobethal Retirement Village

Moved Cr Ron Nelson **67/18**
S/- Cr Nathan Daniell

1. **That the report be received and noted.**
2. **To commence the process to revoke the community land classification of the land located at 3 Jeffrey Street Lobethal contained in Certificate of Title Volume 6017 Folio 705 (Appendix 1) by undertaking community consultation.**
3. **To report back to Council following completion of the community consultation process.**

Carried Unanimously

3. ANALYSIS

Community consultation was undertaken between 18 April 2018 and 18 May 2018.

Council did not receive any written submissions in relation to the proposal.

At the meeting at the Lobethal Retirement Village on 8 May 2018, 2 residents attended to ask questions about the proposal. Information was provided to these residents and both were verbally supportive of the proposal.

4. OPTIONS

Council has the following options:

I. Resolve in accordance with the resolution (Recommended)
II. Resolve not to support the recommendation which would lead to an inability to comply with the legislative obligations of both the *Retirement Villages Act 2016* and the *Local Government Act 1999* (Not Recommended)

5. APPENDICES

(1) Consultation Report
(2) Notices placed in the Courier and Weekender Herald

Appendix 1

Consultation Report

Adelaide Hills
COUNCIL

PUBLIC CONSULTATION

Lobethal Retirement Village
3 Jeffrey Street Lobethal

REVOCATION OF COMMUNITY LAND STATUS

CONTENTS

PROPOSAL FOR REVOCATION OF CLASSIFICATION AS COMMUNITY LAND

Lobethal Retirement Village
3 Jeffrey Street Lobethal
CT 6017-705 ("Subject Land")

Section 194 Local Government Act 1999

REPORT

1. Reasons for the Proposal.

The Subject Land is the only one of Council's 6 retirement villages on the Council's Community Land Register.

The legislation governing retirement villages in South Australia, the *Retirement Villages Act 2016*, requires residents to be granted lifetime tenure agreements.

Council is prohibited from granting leases or licenses over Land that is classified as community land under the *Local Government Act 1999* for any term greater than 21 years which is incompatible with the lifetime tenure agreements issued under the *Retirement Villages Act 2016*.

In 20 June 2000, Council resolved as follows:

16.5.5. Community Land Register – Aged Accommodation & Residential Properties
5/14/003 Don Rabbah

Moved Cr Stan Evans S/- Cr Val Hall	Carried (294)

That in accordance with the Local Government Act 1999, Council initiate proceedings to allow land under Council's residential properties and aged accommodation to be removed from Council's Community Land Register.

On 26 September 2000, Council adopted criteria for land to be excluded or revoked as community land. This criteria included the following:
"*Land is used for Residential purposes including Accommodation for the Aged and Disabled*".

The reason why the Subject Land is on the Community Land Register is unclear.

Legal advice obtained by Council in 2010 and confirmed in 2018 recommended that the Subject Land be revoked as community land due to the incompatibility of

the provisions of the *Local Government Act 1999* and the *Retirement Villages Act 2016* (and the prior *Retirement Villages Act 1987*)

2. Statement of any Dedication, Reservation or Trust.

The Subject Land being Allotment 202 in Deposited Plan 75850 in Certificate of Title Volume 6017 Folio 705 is not subject to any dedication, reservation or trust.

The Subject Land was transferred to the then District Council of Onkaparinga from the Lobethal & District Aged Homes Inc pursuant to an Indenture dated 28 August 1978 for no monetary consideration. The Indenture and supporting Memorandum of Transfer No. 4265040 dated 28 August 1978 did not impose a dedication, reservation or trust on the Subject Land.

3. Purpose of the Proposal

The purpose of the proposal is to revoke the community land classification of the Subject Land to eliminate the incompatibility of the provisions of the *Local Government Act 1999* as regards the leasing of community land and the provisions of the *Retirement Villages Act 2016* granting lifetime tenure of the units to residents as recommended in legal advice obtained by Council in 2010 and confirmed in 2018.

The revocation of the community land classification of the Subject Land will ensure the validity of the current and future occupation agreements with the residents of the Lobethal Retirement Village on the Subject Land.

In addition, revocation of the community land classification of the Subject Land will ensure that Council does not breach its obligations under the *Local Government Act 1999* in respect of granting occupation agreements for terms greater than 21 years.

The revocation will ensure that the Lobethal Retirement Village is consistent with Council's other 5 retirement villages.

4. Affect of the Proposal on the Area and/or Local Community

The Subject Land is a retirement village and is exclusively occupied by residents under occupation agreements pursuant to the *Retirement Villages Act 2016*.

There is no area or function within the Subject Land that is accessible for general community or for public purposes other than for the residents of the retirement village and their guests.

The proposal will not have any affect on the area and/or the local community.

5. Owner of the Land

The Subject Land is owned by the Adelaide Hills Council.

The Subject Land is subject to a Lease agreement dated 11 June 1985 for a term of 50 years made between the then District Council of Onkaparinga and the South Australian Housing Trust as a result of a joint venture arrangement between these parties in respect of the construction on Units 1 to 6. By letter of 6 October 2000, the South Australian Housing Trust confirmed their agreement to the Subject Land not being included on the Council's Community Land Register due to the incompatibility of the two pieces of legislation.

The Subject Land is registered as a Retirement Village pursuant to the *Retirement Villages Act 1987*, now superseded by the *Retirement Villages Act 2016*.

Location of Subject Land


Lobethal Rd
Jeffrey St
Onkaparinga

3. CERTIFICATE OF TITLE

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 6017/705)
Date/Time	19/03/2018 04:06PM
Customer Reference	NRW
Order ID	20180319011090
Cost	$28.25

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 6017 Folio 705

Parent Title(s)	CT 6004/799				
Creating Dealing(s)	VE 10987360				
Title Issued	04/09/2008	**Edition**	1	**Edition Issued**	04/09/2008

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE HILLS COUNCIL
OF PO BOX 44 WOODSIDE SA 5244

Description of Land

ALLOTMENT 202 DEPOSITED PLAN 75850
IN THE AREA NAMED LOBETHAL
HUNDRED OF ONKAPARINGA

Easements

SUBJECT TO FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED B

Schedule of Dealings

Dealing Number	Description
6175416	CAVEAT BY SOUTH AUSTRALIAN HOUSING TRUST OVER PORTION
6419965	APPLICATION PURSUANT TO RETIREMENT VILLAGES ACT, 1987 THE LAND IS USED AS A RETIREMENT VILLAGE

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

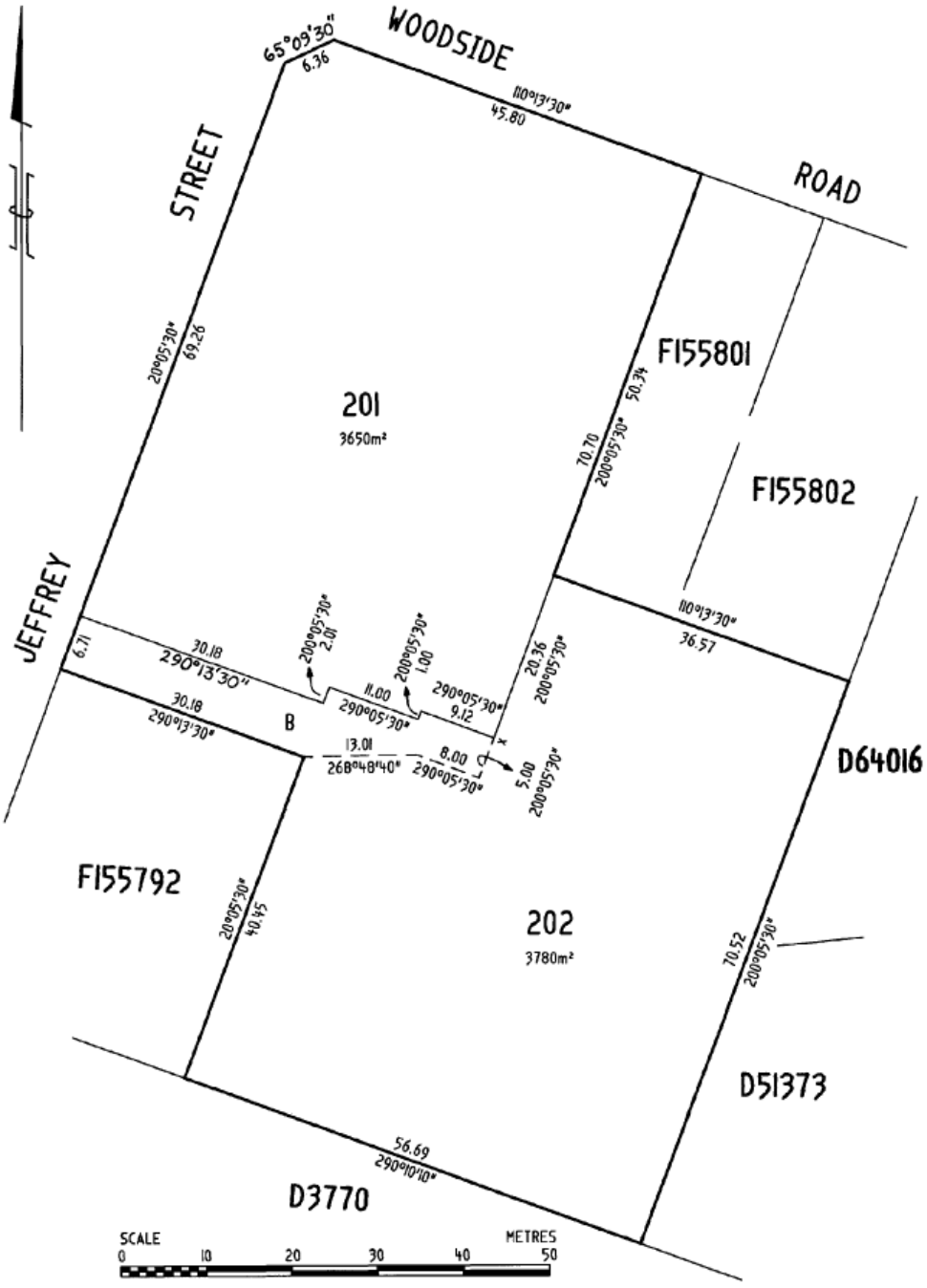
PLAN FOR LEASE PURPOSES VIDE G52/1985

Administrative Interests	NIL

Land Services Page 1 of 2

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 6017/705)
Date/Time	19/03/2018 04:06PM
Customer Reference	NRW
Order ID	20180319011090
Cost	$28.25



4. SECTION 194 LOCAL GOVERNMENT ACT 1999

194—Revocation of classification of land as community land

(1) A council may (subject to the following exceptions and qualifications) revoke the classification of land as community land in accordance with the following procedure.

Exceptions and qualifications—

(a) The classification of the Adelaide Park Lands as community land cannot be revoked unless the revocation is by force of a provision of another Act.

(b) The classification of land as community land cannot be revoked if the land is required to be held for the benefit of the community under Schedule 8, under a special Act of Parliament relating to the land, or under an instrument of trust.

(c) The classification of land as community land cannot be revoked if the power to revoke the classification of that land is excluded by regulation.

(d) The classification of other land as community land cannot be revoked unless—

(i) the Minister approves revocation of the classification; and

(ii) if the land is under the care, control and management of the council but is not owned by the council—the owner of the land approves revocation of the classification.

(2) Before a council revokes the classification of land as community land—

(a) the council must prepare and make publicly available a report on the proposal containing—

(i) a summary of the reasons for the proposal; and

(ii) a statement of any dedication, reservation or trust to which the land is subject; and

(iii) a statement of whether revocation of the classification is proposed with a view to sale or disposal of the land and, if so, details of any Government assistance given to acquire the land and a statement of how the council proposes to use the proceeds; and

(iv) an assessment of how implementation of the proposal would affect the area and the local community; and

(v) if the council is not the owner of the land—a statement of any requirements made by the owner of the land as a condition of approving the proposed revocation of the classification; and

(b) the council must follow the relevant steps set out in its public consultation policy.

(3) After complying with the requirements of subsection (2), the council—

(a) must submit the proposal with a report on all submissions made on it as part of the public consultation process to the Minister; and

(b) if the Minister approves the proposal—may make a resolution revoking the classification of the land as community land.

(4) The Minister must consult with the relevant council before a regulation is made under subsection (1) in relation to a specific piece of land.

(5) For the purposes of subsection (1)(a) (but subject to the exclusion of roads under section 193(1)), the Adelaide Park Lands will be taken to be any local government land within the Adelaide Park Lands, as defined (from time to time) under the *Adelaide Park Lands Act 2005*.

5. AGENDA ITEM AND MINUTES

ADELAIDE HILLS COUNCIL
ORDINARY COUNCIL MEETING
Tuesday 27 March 2018
AGENDA BUSINESS ITEM

Item:	**12.2**
Originating Officer:	**Natalie Westover, Manager Property Services**
Responsible Director:	**Terry Crackett, Director Corporate Services**
Subject:	**Revocation of Community Land – Lobethal Retirement Village**
For:	**Decision**

SUMMARY

The purpose of this report is to seek a resolution of Council to commence a process to revoke the community land classification for the land located at 3 Jeffrey Street Lobethal on which the Lobethal Retirement Village is located.

The review of the Council's retirement village operations discovered that the Lobethal Retirement Village is the only one of Council's 6 retirement villages that is on the Community Land Register.

Due to the various provisions of the *Local Government Act 1999* and the *Retirement Villages Act 2016*, it is incompatible to have retirement villages classified as community land.

RECOMMENDATION

Council resolves:

1. **That the report be received and noted.**
2. **To commence the process to revoke the community land classification of the land located at 3 Jeffrey Street Lobethal contained in Certificate of Title Volume 6017 Folio 705 (*Appendix 1*) by undertaking community consultation.**
3. **To report back to Council following completion of the community consultation process.**

---

1. GOVERNANCE

➢ **Strategic Management Plan/Council Policy**

Goal	Organisational Sustainability
Strategy	Legal compliance

The incompatibility of the provisions of the *Local Government Act 1999* and the *Retirement Villages Act 2016* mean that Council currently breaches the requirements of section 202 of the *Local Government Act 1999* when granting an occupation agreement under the *Retirement Villages Act 1999*.

Consultation will be undertaken in accordance with the Council's *Public Consultation Policy*.

➢ **Legal Implications**

Under Section 202 of the *Local Government Act 1999*, Council cannot lease community land for a term exceeding 21 years which is inconsistent with the *Retirement Villages Act 2016* which grants lifetime security of tenure to residents.

Also under Section 202 Council cannot lease community land for a term of greater than 5 years without first undertaking a public consultation process.

Occupation agreements issued pursuant to the *Retirement Villages Act 2016* are for a non-defined term which can be greater than 5 and 21 years at the option of the tenant.

The issuing of occupation agreements for a retirement village unit for a term greater than 21 years and without conducting public consultation for terms greater than 5 years may result in the occupation agreement being invalid. Whilst we do not expect that this presents any immediate concerns, it is a less than ideal position for both the Council and the residents.

Undertaking a public consultation process in relation to a retirement village unit requires the disclosure of information in relation to the proposed lease which creates difficulties in maintaining the privacy of the proposed tenant.

Revocation of community land is undertaken in accordance with section 194 of the *Local Government Act 1999* and the Council's Public Consultation Policy.

➢ **Risk Management Implications**

The revocation of community land will assist in mitigating the risk of:

Non-compliance with legislation leading to possible invalidity of occupation agreements.

Inherent Risk	Residual Risk	Target Risk
Extreme (3A)	Low (1E)	Low (1E)

The mitigation action is specific to this circumstance as all other retirement villages owned by Council were excluded as community land in 2002.

➢ **Financial and Resource Implications**

Undertaking a public consultation process in relation to a retirement village unit incurs a cost to Council for advertising which will be managed within existing resources. The costs to undertake the public notification advertising are estimated at $1000.

➢ **Customer Service and Community/Cultural Implications**

Not applicable

- **Environmental Implications**

Not applicable

- **Engagement/Consultation conducted with Council Committee, Regional Subsidiary, Advisory Group, the Administration and Community**

Council Committees: Not Applicable

Council Workshops: Not Applicable

Advisory Groups: Not Applicable

Administration: Director Corporate Services

Community: Not Applicable

2. BACKGROUND

With the commencement of the *Local Government Act 1999*, councils were required to make an assessment of all of their land holdings to determine what was to be included on the newly required Community Land Register.

Council's had until 31 December 2002 to exclude specific parcels of land from their Community Land Register, with all remaining parcels of land in council ownership or under their care, control and management deemed to be community land.

On 20 June 2000, Council resolved:

16.5.5. Community Land Register – Aged Accommodation & Residential Properties
5/14/003 Don Rabbah

Moved Cr Stan Evans	**Carried**
S/- Cr Val Hall	**(294)**

That in accordance with the Local Government Act 1999, Council initiate proceedings to allow land under Council's residential properties and aged accommodation to be removed from Council's Community Land Register.

On 13 September 2000, Council wrote to the South Australian Housing Trust ("SAHT"), as the leaseholder of 6 units, seeking their consent to exclude the Lobethal Retirement Village as community land. SAHT confirmed their consent by letter dated 6 October 2000.

Council wrote to the Local Government Association and the Office for Local Government on 25 July 2001 expressing their concerns of the inclusion of retirement villages as community land and sought an exemption for retirement villages. An exemption was not provided or included in the Regulations which created an issue for all councils who own retirement villages. This did not occur.

Legal advice received on 27 October 2000 indicated that the existence of the joint venture agreement with SAHT had the effect of the Lobethal land being one of the few exclusions to the definition of community land, however this agreement did not specify if that exemption applied to the whole of the land in the title, or just the 6 units subject to the joint venture arrangement.

At that time, Council proceeded to exclude the other retirement villages as community land but not Lobethal. The result was that the Lobethal Retirement Village was automatically included on the Community Land Register given it was not 'excluded'.

Council obtained legal advice in 2010 which recommended that the Council revoke the community land classification of the Lobethal Retirement Village to deal with the above difficulties and to ensure that occupation agreements issued to residents were valid. This has not been progressed to date.

3. ANALYSIS

Following the recent realisation that the Lobethal Retirement Village has remained on the Community Land Register, Council staff have undertaken a review of the following:

- the Community Land Register and associated Community Land Management Plans
- the various Council decisions since 2000
- legal advice obtained since 1999, and
- obtained new advice to confirm whether or not the 6 units subject to the agreement with SAHT are exempt as community land.

The analysis of all of the above indicates that the appropriate course of action for Council to ensure that occupation agreements issued to residents of the Lobethal Retirement Village pursuant to the *Retirement Villages Act 2016* (and superseded Acts) are valid and secure, is to revoke the community land classification of the land located at 3 Jeffrey Street Lobethal.

4. OPTIONS

Council has the following options:

I. Resolve to commence the revocation of community land classification of the land at 3 Jeffrey Street Lobethal (Recommended)

II. Not resolve to commence the revocation of community land classification of the land at 3 Jeffrey Street Lobethal which will result in additional costs to Council for public notification prior to an occupation agreement being granted to a resident and may result in occupation agreements being deemed invalid (Not Recommended)

5. APPENDIX

(1) Certificate of Title Volume 6017 Folio 705

Appendix 1

Certificate of Title Volume 6017 Folio 705

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 6017/705)
Date/Time	19/03/2018 04:06PM
Customer Reference	NRW
Order ID	20180319011090
Cost	$28.25

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 6017 Folio 705

Parent Title(s) CT 6004/799

Creating Dealing(s) VE 10987360

Title Issued 04/09/2008 **Edition** 1 **Edition Issued** 04/09/2008

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE HILLS COUNCIL
OF PO BOX 44 WOODSIDE SA 5244

Description of Land

ALLOTMENT 202 DEPOSITED PLAN 75850
IN THE AREA NAMED LOBETHAL
HUNDRED OF ONKAPARINGA

Easements

SUBJECT TO FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED B

Schedule of Dealings

Dealing Number	Description
6175416	CAVEAT BY SOUTH AUSTRALIAN HOUSING TRUST OVER PORTION
6419965	APPLICATION PURSUANT TO RETIREMENT VILLAGES ACT, 1987 THE LAND IS USED AS A RETIREMENT VILLAGE

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

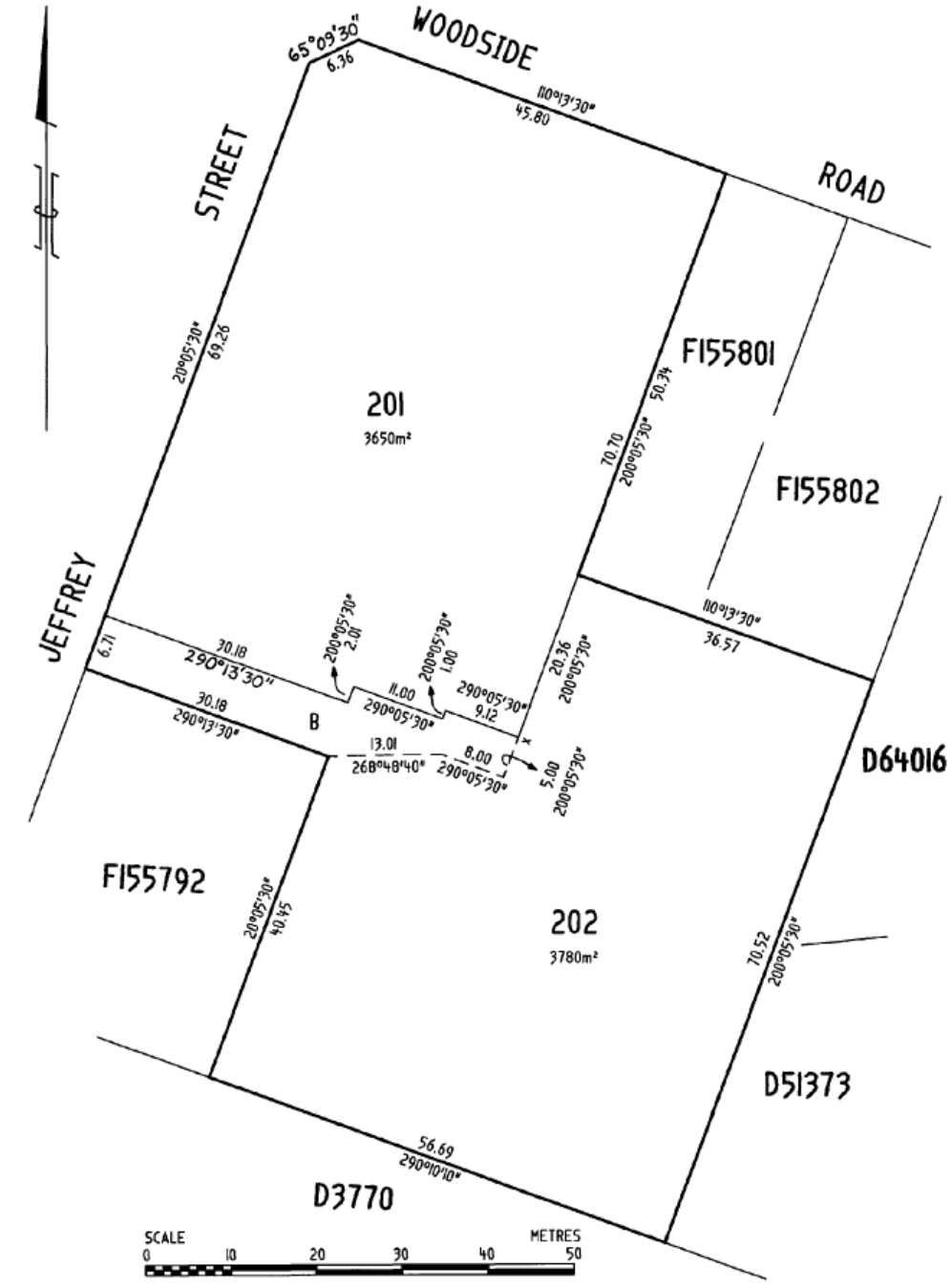
Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G52/1985

Administrative Interests NIL

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 6017/705)
Date/Time	19/03/2018 04:06PM
Customer Reference	NRW
Order ID	20180319011090
Cost	$28.25



6. PUBLIC CONSULTATION NOTICE

Public Consultation

Revocation of Community Land – Lobethal Retirement Village located at 3 Jeffrey Street Lobethal being Allotment 202 in Deposited Plan No. 75850 comprised in Certificate of Title Volume 6017 Folio 705.

Notice is hereby given pursuant section 194 (2) of the *Local Government Act 1999* that the Adelaide Hills Council proposes to revoke the community land classification of the land contained in Certificate of Title Volume 6017 Folio 705.

Council has prepared a report regarding the proposed revocation that address the requirements under section 194 (2) of the Local Government Act 1999 and is available for inspection at the:

- Coventry Library, 63 Mount Barker Road, Stirling
- Woodside Service Centre, 26 Onkaparinga Valley Road, Woodside
- Gumeracha Civic Centre, 45 Albert Street, Gumeracha
- Or on the Council's website ahc.sa.gov.au

Any person is entitled to object to the proposed revocation via a written submission. An objection must state whether the objector wishes to make a deputation to the Council in relation to the revocation process. The Council will give notification of a meeting at which the matter will be considered so the person making the deputation or a representative may attend, if so desired.

Interested persons are invited to review the Report and make written submissions regarding the proposal to revoke the community land classification of the subject land by 5.00pm on Friday 18 May 2018.

Project Manager Name	Natalie Westover
Phone	08 8408 0546
Email	nwestover@ahc.sa.gov.au

Appendix 2

Notices placed in the Courier and Weekender Herald

China ban will force significant changes to recycling

Choose the right bin

by Samantha Smith and Casey Tonkin

In a move that is set to significantly impact South Australia's yellow bins and pockets, China has decided to scrap their waste agreement with Australia.

In what is being called China's Green Sword, a new policy will see see China ban the import of 24 types of solid waste, such as plastics and unsorted mixed papers as well as a much tougher standard for contamination levels.

It is unknown how much this change will cost recycling contractors.

General manager of Adelaide Hills Council's waste contractor East Waste, Rob Gregory said it will be significant.

"Negotiations are still being sorted out but there are only three yellow bin recycling contractors in South Australia, meaning they are the ones who are going to feel it – to be able to offset costs would mean looking into other markets," Rob said.

Prices for yellow bin materials like paper and cardboard were selling at $150-200 per tonne mid last year but recently it has dropped to $40 a tonne.

"China has been a major consumer for not only Australia's recyclables but the world's as well – they would purchase at any given time 60-80 per cent of Australia's paper and cardboard and 70 per cent globally.

"Recyclers are advising that Australia should view this as a wake up call to seek alternative markets or even set up a secondary processing plant," he said.

While it is unclear how much this will hit the pockets of the recyclables industry Rob wants to make it clear that recycling is still an economically and environmentally viable option.

"This is a long term issue that we need to work hard on but for now everyone can help by putting their recycling into yellow bins and ensuring as little contamination as possible."

Yellow bin recyclables include: paper and cardboard, hard plastics, glass, aluminum, steel and tin.

Contaminants which are not meant to go in the bins include: plastic bags, food, liquids, clothing/fabrics, polystyrene, shredded paper, wire, construction waste, organic material, nappies and electrical waste.

For more information on how to improve your recycling habits contact East Waste on 8347 5111.

Public Consultation

Revocation of Community Land – Lobethal Retirement Village located at 3 Jeffrey Street Lobethal being Allotment 202 in Deposited Plan No. 75850 comprised in Certificate of Title Volume 6017 Folio 705.

Notice is hereby given pursuant section 194 (2) of the Local Government Act 1999 that the Adelaide Hills Council proposes to revoke the community land classification of the land contained in Certificate of Title Volume 6017 Folio 705.

Council has prepared a report regarding the proposed revocation that address the requirements under section 194 (2) of the Local Government Act 1999 and is available for inspection at the:

- Coventry Library, 63 Mount Barker Road, Stirling
- Woodside Service Centre, 26 Onkaparinga Valley Road, Woodside
- Gumeracha Civic Centre, 45 Albert Street, Gumeracha
- Or on the Council's website ahc.sa.gov.au

Any person is entitled to object to the proposed revocation via a written submission. An objection must state whether the objector wishes to make a deputation to the Council in relation to the revocation process. The Council will give notification of a meeting at which the matter will be considered so the person making the deputation or a representative may attend, if so desired.

Interested persons are invited to review the Report and make written submissions regarding the proposal to revoke the community land classification of the subject land by 5.00pm on Friday 18 May 2018.

Project Manager Name
Natalie Westover

Phone (08) 8408 0546
Email nwestover@ahc.sa.gov.au

Adelaide Hills Council

ahc.sa.gov.au

PUBLIC CONSULTATION

Revocation of Community Land – Lobethal Retirement Village located at 3 Jeffrey Street Lobethal being Allotment 202 in Deposited Plan No. 75850 comprised in Certificate of Title Volume 6017 Folio 705.

Notice is hereby given pursuant section 194 (2) of the Local Government Act 1999 that the Adelaide Hills Council proposes to revoke the community land classification of the land contained in Certificate of Title Volume 6017 Folio 705.

Council has prepared a report regarding the proposed revocation that address the requirements under section 194 (2) of the Local Government Act 1999 and is available for inspection at the:

- Coventry Library, 63 Mount Barker Road, Stirling
- Woodside Service Centre, 26 Onkaparinga Valley Road, Woodside
- Gumeracha Civic Centre, 45 Albert Street, Gumeracha
- Or on the Council's website ahc.sa.gov.au

Any person is entitled to object to the proposed revocation via a written submission. An objection must state whether the objector wishes to make a deputation to the Council in relation to the revocation process. The Council will give notification of a meeting at which the matter will be considered so the person making the deputation or a representative may attend, if so desired.

Interested persons are invited to review the Report and make written submissions regarding the proposal to revoke the community land classification of the subject land by 5.00pm on Friday May 18, 2018.

Project Manager Name
Natalie Westover
Phone 8408-0546
Email nwestover@ahc.sa.gov.au

Adelaide Hills Council

Have your new born baby photographed by *The Courier* to show all your family and friends your new little bundle of joy. Just come into the office between 9-5 p.m., Monday to Friday.

Courier
The Newspaper of the Adelaide Hills

PHONE 8391-1388

Been snapped by a **Courier** photographer?
... and it didn't appear in the paper!
You can still get a copy of the photograph. Come in and select from our proof sheets.
PHONE 8391-1388
Be QUICK

ANZAC Day Events
Temporary Road Closures

MOUNT BARKER DISTRICT COUNCIL

Notice under section 33 Road Traffic Act, 1961.

I, Andrew Stuart, Chief Executive Officer, for, and on behalf of the Mount Barker District Council, in accordance with the instrument of general approval and delegation from the Minister for Transport and Infrastructure to Council revoke the authority delegated by the Minister of Transport under Sections 17, 20 and 33 Road Traffic Act, and make the following orders.

I declare that the following ANZAC Day events are a "temporary purpose" to which this section applies. I further declare that persons taking part in the event be exempted, in relation to the specified roads, from the duty to observe the Australian Road Rules specified in Clause G.4, subject to the conditions in Clause G.5 of the instrument.

I direct that the following traffic restrictions be implemented:

Macclesfield ANZAC Twilight Event Sunday 22 April 2018
Speed Reduction - Vernon St for 100 metres from the Todd St intersection to be reduced to 25km between 5:30pm to 7pm

Hahndorf ANZAC Day Wednesday 25 April 2018
Speed Reduction - Mount Barker Road, Hahndorf for 100 metres either side of Alec Johnson Park to be reduced to 25km between 5:30am and 10am

Meadows ANZAC Day Wednesday 25 April 2018
Road Closures - Mill St from Expedition Boulevard for 80 metres between 5:30am and 10am
Speed Reduction - Mawson Road between The Recreation Grounds and the Hall to be reduced to 25km between 5:30am and 10am

Mount Barker ANZAC Day Wednesday 25 April 2018
Road Closure and Total Parking Ban - Mann Street from the Walker St to Stephen St intersections between 5am and 11am

Nairne ANZAC Day Wednesday 25 April 2018
Road Closures - Jeffrey Street from Main Road to the Railway line between 5:30am and 10am

Andrew Stuart Chief Executive Officer, for and on behalf of Mount Barker District Council

Local Government Centre
Mount Barker Homemaker Centre
6 Dutton Road, Mount Barker

8am-5pm Monday to Friday
Phone 8391 7200
www.mountbarker.sa.gov.au

BURNING PERMIT
ADELAIDE HILLS COUNCIL
Environment Protection (Air Quality) Policy 2016

INTERPRETATION

The following definitions apply for the purposes of this burning permit:

- ***fire danger season*** means the fire danger fixed pursuant to the *Fire and Emergency Services Act 2005*;
- ***metropolitan Adelaide*** has the same meaning as in the *Development Act 1993*; and
- ***township*** has the same meaning as in the *Local Government Act 1999*;

PERMITTED BURNING ACTIVITIES

This burning permit is issued under clause 6(3)(a)(ii) of the *Environment Protection (Air Quality) Policy 2016* ("the Policy") by the Chief Executive Officer of the Adelaide Hills Council. It authorises any person, **subject to** the conditions below, to carry out any of the following burning activities, outside of the fire danger season:

A. burning agriculture or forestry waste;
B. burning off vegetation for fire prevention or control;
C. burning vegetation comprising dry wood or other dry plant material in a brazier, chiminea or fire pit in the open for domestic heating;
D. lighting or maintaining a fire in the open to burn vegetation comprising dry wood or other dry plant material for a campfire or barbecue in the course of camping, scouting or a similar outdoor recreational activity.

For the avoidance of doubt, the burning activities listed above are in addition to those burning activities that may be carried out in the open within metropolitan Adelaide or, within a township outside of metropolitan Adelaide pursuant to clause 5 of the Policy without the need to obtain a burning permit. This includes:

- lighting or maintaining a fire using charcoal, dry wood or other dry plant material for the purpose of preparing food or beverages; and
- burning charcoal in a brazier, chiminea or fire pit for domestic heating.

CONDITIONS

1. The burning activities described in paragraphs A-D above are only authorised to be carried out on land that is within metropolitan Adelaide **and** any one of the following zones (as defined in the Adelaide Hills Council Development Plan adopted pursuant to the *Development Act 1993*) **but excluding** any land within a township other than the township of Greenhill;
   1.1. The Watershed (Primary Production) Zone;
   1.2. The Hills Face Zone;
   1.3. The Public Purpose Zone, excluding those areas with a Medium Bushfire Risk classification in a Bushfire Protection Area; and
   1.4. The Tourist Accommodation Zone.
2. This burning permit does not (and cannot) authorise a person to carry out any of the burning activities described under paragraphs A and B above on land if the person is not the owner or occupier of the land or, does not have the consent or authority of the owner or occupier.
3. A person carrying out a burning activity described under paragraph A and B above must:
   3.1. comply with any mandatory measures of the *Vegetation Pile Burning Code of Practice April 2015* and the *Broad Acre Burning Code of Practice April 2015* prepared by the South Australian Country Fire Service; and
   3.2. have regard to any recommended measures of the *Vegetation Pile Burning Code of Practice April 2015* and the *Broad Acre Burning Code of Practice April 2015* prepared by the South Australian Country Fire Service.
4. This burning permit is effective from the end of the 2017/2018 fire danger season and remains in force until the start of the 2022/2023 fire danger season unless revoked on an earlier date by further notice of the Council.
5. All burning must occur in accordance with any verbal or written directions given by a Council officer.
6. All reasonable steps must be taken to mitigate any nuisance or adverse effects on occupiers of nearby land arising from the smoke from a fire authorised by this permit.

TAKE NOTE

- This permit does **NOT** authorise the burning of *prohibited substances* as listed in schedule 1 of the *Environment Protection (Air Quality Policy) 2016*, including:
  - waste listed in Part B of Schedule 1 of the *Environment Protection Act 1993*;
  - copper chromium arsenate or other timber preservation chemicals;
  - plastics;
  - tyre waste; and/or
  - a substance of material containing, or contaminated with, any substance listed above.

Causing or permitting the burning of a prohibited substance is an offence that may attract a maximum penalty of $30 000 (see clause 7(1) of the *Environment Protection (Air Quality Policy) 2016*).

- In accordance with clause 6(5) of the Policy, compliance with this permit does not:
  - relieve a person from liability for any loss, damage or harm caused by a fire lit under the authority of the burning permit; or
  - prevent proceedings for enforcement of the general environmental duty under Section 25 of the *Environment Protection Act 1993*, or for any offence under the *Environment Protection Act 1993*, in relation to the burning activity.
- This permit applies subject to any ban, prohibition, restriction, or other requirement under the *Fire and Emergency Services Act 2005*, the *Native Vegetation Act 1991* or a prescribed act (as that term is defined under the Policy).

Failure to comply with a condition of this permit is an OFFENCE that may attract a maximum penalty of $30 000
Clause 5(1) of the *Environment Protection (Air Quality) Policy 2016*

For general information and Frequently Asked Questions on Burning in the Open in the Adelaide Hills Council area, please visit Council's website www.ahc.sa.gov.au.

Andrew Aitken
Chief Executive Officer
Adelaide Hills Council

Adelaide Hills Council

ADELAIDE HILLS COUNCIL
SPECIAL COUNCIL MEETING
Tuesday 19 June 2018
AGENDA BUSINESS ITEM

Item:	**5.2**
Originating Officer:	**Lachlan Miller, Executive Manager Governance & Performance**
Responsible Director:	**Terry Crackett, Director Corporate Services**
Subject:	**Corporate Planning & Performance Framework**
For:	**Decision**

SUMMARY

As a local government entity, Council has a number of legislative obligations regarding the preparation and distribution of corporate planning and reporting information to the elected body and the community. In addition, to these mandated requirements, Council has over time created a number of additional elements to improve the integration, transparency and accountability of its activities.

In recognition of the importance of these corporate planning and reporting functions, Council has invested in a staff resource to coordinate and manage these processes. To guide these processes, the Council required a corporate reporting framework to be developed.

The purpose of this report is to provide the draft Corporate Planning & Performance Framework (the Framework) for Council's approval.

RECOMMENDATION

Council resolves:

1. **That the report be received and noted**
2. **With an effective date of 1 July 2018, to adopt the draft Corporate Planning & Performance Framework contained in Appendix 1.**

---

1. GOVERNANCE

- **Strategic Management Plan/Council Policy**

Goal	Organisational Sustainability
Strategy	Our Organisation
Strategy	Financial Sustainability
Strategy	Customer Services Commitment

Strategy Risk & Responsibility

The development of the Framework promotes Council's ability to strategically, tactically and operationally plan its activities and resources and to structure corporate reporting systems and processes to monitor performance.

A number of Council's policies (e.g. Risk Management, Customer Service Framework, etc.) contain reporting obligations to Council and Committees.

➢ **Legal Implications**

Chapter 8 - Administrative and financial accountability of the *Local Government Act 1999* sets out the key legislative obligations regarding corporate planning and reporting obligations, as follows:

- S122 – Strategic management plans – development, content requirements, consultation, review and availability of strategic plan, asset management plan and long-term financial plan;
- S123 – Annual business plans and budgets - development, content requirements, consultation, review and availability of annual business plan and budget
- S127 – Financial statements – preparation, content, auditing and availability of the financial statements;
- S131 – Annual reports – preparation, content, distribution and availability of the annual report

Additional requirements are contained in the *Local Government (General) Regulations 2013* and the *Local Government (Financial Management) Regulations 2011*.

➢ **Risk Management Implications**

Establishing a framework to guide Council's corporate planning and reporting activities will assist in mitigating the risk of:

> *Poor governance practices occur which lead to a loss of stakeholder (i.e. customer and regulator) confidence and/or legislative breaches.*

Inherent Risk	Residual Risk	Target Risk
Extreme (5C)	Medium (3D)	Medium (3D)

Note that there are many other controls that assist in mitigating this risk.

➢ **Financial and Resource Implications**

The Corporate Planning & Performance Coordinator role is funded in the Governance & Performance Department budget. The costs of materials to implement the Framework will be negligible and is accommodated in the aforementioned budget.

➢ **Customer Service and Community/Cultural Implications**

Providing integrated, consultative corporate planning and effective and transparent performance reporting to the Council and community has the potential to increase the level of trust and confidence in Council.

- **Environmental Implications**

Not applicable.

- **Engagement/Consultation conducted with Council Committee, Regional Subsidiary, Advisory Group, the Administration and Community**

Consultation on the development of this report was as follows:

Council Committees: The Audit Committee and the CEO Performance Review Panel were provided briefings on the draft Framework at their 30 April and 29 May 2018 meetings respectively. Feedback received from these Committees has been incorporated into the Framework.

Council Workshops: Not applicable

Advisory Groups: Not applicable

Administration: Consultation on the draft Framework has occurred with both Executive Leadership Team and the Senior Leadership Team.

Community: Not applicable

2. BACKGROUND

Over the years, the legislative obligations under the Act (as identified above) for corporate planning and performance reporting have been undertaken by a number of different functional areas within the Council's Administration. While all legislative obligations have been met, this fragmentation has hampered the realisation of the potential synergies available from a more holistic and integrated approach to corporate planning and reporting.

In early 2017, the Administration conducted a review and benchmarking project on the provision of services and resources of the governance, risk, internal audit, procurement, emergency management and performance reporting (GRIAPEMPR) functions. The result was the realisations of the under-resourcing of these functions in light or rapid legislative change and community and management expectations. The 2017/18 budget included the creation of a permanent full-time Corporate Planning & Performance Coordinator (Coordinator) role.

The overall purpose of the Coordinator role is:

> *..to coordinate the development and maintenance of Council's corporate planning framework including, but not limited to, the strategic management plans, the corporate plan, rolling 3-year operating and capital plans and the annual business plan. Additionally the role will develop and implement the corporate performance reporting framework that includes, but is not limited to, the suite of corporate plans and business performance indicators.*

In the Governance & CEO Office function section of the *2017/18 Annual Business Plan*, the following key initiatives were identified:

- Establish the corporate planning function through the consolidation of the strategic, corporate and annual business planning functions across the organisation; and
- Coordinate the development and reporting of a suite of corporate indicators to assist in monitoring the performance of Council's key plans, strategies, projects and services.

At its 27 June 2017 meeting, Council resolved to adopt the suite of 2017/18 CEO Performance Targets including the following:

> *Review Council's corporate reporting approaches and produce a consolidated Corporate Reporting Framework from which to guide regular reporting to management and Council.*

While the completion of the Elector Representation Review and a number of public integrity matters delayed work on the Framework, the following corporate planning achievements have occurred:

- Reporting against each of the functional strategies adopted under the former and current Strategic Plan is programmed into the Ordinary Council meeting schedule.
- The 3 year rolling new operating and capital project plan was incorporated into the 2017/18 annual business planning process.
- The 2018/19 annual business planning process was significantly revised to identify the services provided by each function and to nominate service levels against many of these services for reporting to Council and management during 2018/19.

3. ANALYSIS

The draft Framework (***Appendix 1***) provides a high level concept and principles for the integration of the corporate planning and reporting functions. While many elements of the Framework, as legislative obligations, are currently in place there is still considerable work to be undertaken in the 'fleshing out' of the discretionary elements.

It is however the discretionary elements that will take Adelaide Hills Council from the achievement of compliance with its legislative obligations to an organisation that better:

- Engages with and articulates the community's vision, goals and priorities
- Develops strategies, prioritises and allocates resources to achieve the vision, striking a considered balance between aspirations and financial sustainability
- Identifies opportunities service and efficiency improvements
- Monitors and reports progress against those strategies in a timely and transparent manner.

Recruitment action for the Corporate Planning & Performance Coordinator role is well advanced and it is anticipated that an appointment will be made prior to the end of the financial year.

Given the expertise in this field that will be coming into the organisation, this first iteration of the Framework is pitched at the strategic level with the intention that processes and procedures will be developed over the coming months consistent with the Framework. Further it is anticipated that a major review of the Framework will occur in the next 12-18 months, timed to be completed before Council's mandatory obligation to '..undertake a comprehensive review of its strategic management plans within 2 years after each general election' (i.e. before November 2020).

4. OPTIONS

Council has the following options:

I. To adopt the Framework, with or without amendment, as presented in Appendix 1 (Recommended). Should Council identify the need for substantial amendments to the Framework, it is recommended that they be referred to staff for review to allow for analysis of the implications of the amendments, prior to the matter being brought back to the Council for further consideration.

II. To determine not to adopt the Framework at this time (Not Recommended). The Framework is not a legislative requirement and, as long as the legislative obligations under the Act and Regulations are met, there will be no legal exposure to Council. Delaying the adoption of the Framework will impact on the achievement of the aforementioned realisation of the potential synergies available from a more holistic and integrated approach to corporate planning and reporting. Further, not adopting the Framework either now or in the future will make the assessment of the CEO performance target in relation to this matter problematic.

5. APPENDIX

(1) Draft Corporate Planning & Performance Framework – June 2018

Appendix 1

Draft Corporate Planning & Performance Framework – June 2018

COUNCIL POLICY

Adelaide Hills COUNCIL	**CORPORATE PLANNING & PERFORMANCE FRAMEWORK**

Policy Number:	**The Governance team will allocate the policy number.**
Responsible Department(s):	**Governance & Performance**
Other Relevant Policies:	**Customer Service Framework** **Risk Management Policy**
Relevant Procedure(s):	**Nil**
Relevant Legislation:	***Local Government Act 1999*** ***Local Government (General) Regulations 2013*** ***Local Government (Financial Management) Regulations 2011***
Policies and Procedures Superseded by this policy on its Adoption:	**Nil**
Adoption Authority:	**Council**
Date of Adoption:	***To be entered administratively***
Effective From:	***To be entered administratively***
Minute Reference for Adoption:	***To be entered administratively***
Next Review:	**No later than June 2020 or as required by legislation or changed circumstances**

CORPORATE PLANNING & PERFORMANCE FRAMEWORK

1. INTRODUCTION

1.1 The *Local Government Act 1999* and associated Regulations contain a number of obligations on councils to prepare corporate planning documents of specified type and durations including the strategic management plans (s122), and annual business plans (s123). Similarly there are obligations for council to prepare reports including the financial statements (s127) and annual reports (s131).

1.2 In recognising the legislative requirements for a number of the components of the Framework, this document does not seek to replicate these requirements through the provision of extracts of the legislation.

2. OBJECTIVE

2.1 The overall objective of the Corporate Planning & Performance Reporting Framework is to promote integrated corporate planning and performance monitoring in a manner that better:

- Engages with and articulates the community's vision, goals and priorities
- Develops strategies, prioritises and allocates resources to achieve the vision, striking a considered balance between aspirations and financial sustainability
- Identifies opportunities service and efficiency improvements
- Monitors and reports progress against those strategies in a timely and transparent manner.

3. POLICY STATEMENT

4.1 The Council is committed to maintaining a robust and integrated Governance Framework that assures stakeholders that it is pursuing its objectives and fulfilling its responsibilities with due diligence and accountability.

4.2 Community expectations for public institutions to understand and promote their vision, goals and priorities have increased in recent times. Closely allied to this trend is the expectation is that these institutions, including, but not limited to councils, are accountable and transparent in both the use of public funds to pursue these goals and the level of achievement obtained.

4.3 The purpose of the Corporate Planning & Performance Framework is to provide the high level structure for Council's corporate planning and performance reporting activities to both promote legislative compliance and to improve the integration, accountability and transparency of Council activities and resource use.

4. FRAMEWORK COMPONENTS

4.1 The Framework (Appendix 1) contains both planning and reporting components which have been grouped over the following time horizons:

- Strategic - 3 to 10 years
- Tactical – 1 to 3 years
- Operational – 1 year

4.2 The Framework identifies those components that are required under the *Local Government Act 1999* and the *Local Government (Financial Management) Regulations 2011*. The other components of the Framework are, essentially, discretionary and have been determined by the Council to improve the planning and reporting activities of the organisation.

4.3 The Framework identifies the different audiences for the performance reporting provided against each planning component. For each of these audiences the reporting will contain performance information tailored to be appropriate and relevant for the decision–making context of that recipient.

4.4 A number of the components of the Framework are under development and these are identified in Appendix 1. Bringing these components into production will be dependent on the needs of the respective audience, the availability of the required information and the resources required (technical and human) to collect, validate and produce the information.

5. DELEGATION

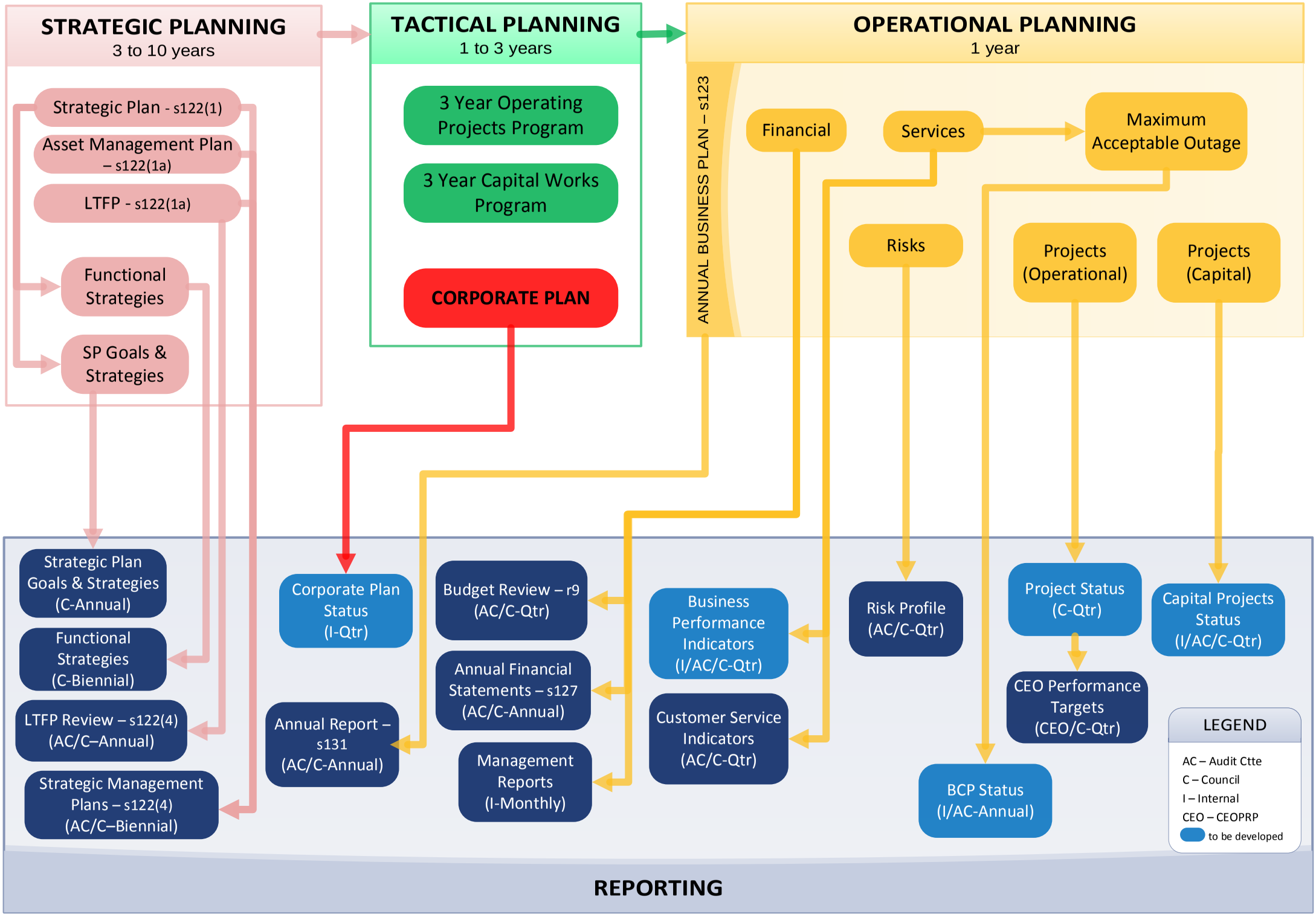
5.1 The Chief Executive Officer has the delegation to:

- Approve, amend and review any procedures that shall be consistent with this Framework; and
- Make any formatting, nomenclature or other minor changes to the Framework during the period of its currency.

6. AVAILABILITY OF THE FRAMEWORK

6.1 This Framework will be available for inspection at the Council's Offices during ordinary business hours and via the Council's website www.ahc.sa.gov.au. Copies will also be provided to the public upon request, and upon payment of a fee in accordance with the Council's Schedule of Fees and Charges.

Appendix 1


STRATEGIC PLANNING
3 to 10 years
Strategic Plan - s122(1)
Asset Management Plan – s122(1a)
LTFP - s122(1a)
Functional Strategies
SP Goals & Strategies
TACTICAL PLANNING
1 to 3 years
3 Year Operating Projects Program
3 Year Capital Works Program
CORPORATE PLAN
OPERATIONAL PLANNING
1 year
ANNUAL BUSINESS PLAN – s123
Financial
Services
Maximum Acceptable Outage
Risks
Projects (Operational)
Projects (Capital)
Strategic Plan Goals & Strategies (C-Annual)
Functional Strategies (C-Biennial)
LTFP Review – s122(4) (AC/C–Annual)
Strategic Management Plans – s122(4) (AC/C–Biennial)
Corporate Plan Status (I-Qtr)
Budget Review – r9 (AC/C-Qtr)
Annual Financial Statements – s127 (AC/C-Annual)
Annual Report – s131 (AC/C-Annual)
Management Reports (I-Monthly)
Business Performance Indicators (I/AC/C-Qtr)
Customer Service Indicators (AC/C-Qtr)
Risk Profile (AC/C-Qtr)
BCP Status (I/AC-Annual)
Project Status (C-Qtr)
CEO Performance Targets (CEO/C-Qtr)
Capital Projects Status (I/AC/C-Qtr)
LEGEND
AC – Audit Ctte
C – Council
I – Internal
CEO – CEOPRP
to be developed
REPORTING

ADELAIDE HILLS COUNCIL
SPECIAL COUNCIL MEETING
Tuesday 19 June 2018
AGENDA BUSINESS ITEM

Item:	**5.3**
Originating Officer:	**Marc Salver, Director Strategy and Development**
Responsible Director:	**Marc Salver, Director Strategy and Development**
Subject:	**Gawler River Floodplain Management Authority (GRFMA) – Support for the Northern Floodway Project**
For:	**Decision**

SUMMARY

The GRFMA is a regional subsidiary established under the *Local Government Act 1999* to coordinate the construction, operation and maintenance of flood mitigation infrastructure for the Gawler River and associated activities. At a Special Board Meeting of the GRFMA held on 17 May 2018, it was resolved:

GRB 18/34 Northern Floodway Project

Moved: Cr M Lawrence **Seconded: Mr. J Miller**

That the GRFMA:

1. **Resolve to continue progressing the Northern Floodway Project as a priority, subject to:**
   a. **The Federal and State Governments confirming in writing a commitment to fund in totality all capital costs including the further design; and development costs associated with the Northern Floodway Project.**
   b. **Acknowledging the GRFMA contribution will be responsibility for the ongoing maintenance of the Northern Floodway; and**
   c. **The GRFMA seeking formal commitment from all constituent Council's on progressing the Northern Floodway Project on this funding principle.**

2. **Request the Chair of the GRFMA to advise the Federal and State Government of this approach.**

CARRIED UNANIMOUSLY

In accordance with the above resolution, Council received a letter from the Independent Chair of the Board (refer to ***Appendix 1***) on 18 May 2018 seeking Council's support and commitment for the progression of the Northern Floodway Project (refer to ***Appendix 2*** for the Preliminary Project Prospectus). It is noted that the estimated cost of implementing this Project is $27 million which the Constituent Councils cannot afford. It is noted that the above Board resolution states that the progression of the Northern Floodway Project is subject to the planning, design and construction being funded entirely by Federal and State Governments.

Implementation of the Northern Floodway Project is anticipated to result in increased flood protection for 211 properties and reduced flooding for an additional 10 properties in the Lower Gawler River floodplain. This includes other benefits such as substantially reduced flood damage through the protection of the high value horticultural lands around Virginia, no overtopping of Port Wakefield Road maintaining use of the critical A1 transport route, and no flooding of the existing Virginia Township or re-zoned residential / deferred urban areas within the Virginia Growth Precinct. The GRFMA Board is seeking the support and commitment from all of the Constituent Councils for the Northern Floodway Project in order to consider progression of the project at its forthcoming 21 June 2018 meeting. Note that the majority support of Constituent Councils is required for this to occur.

In light of the potential benefits of the Project as outlined in this report, Administration recommends that Council provide its support and commitment in order for the Board to progress this Project and advise the GRFMA Board accordingly.

RECOMMENDATION

Council resolves:

1. **That the report be received and noted.**

2. **That the Gawler River Flood Management Authority is advised that Council is committed to and supports the progression of the Northern Floodway Project subject to the planning, design and construction being funded entirely by the Federal and State Governments, with the ongoing maintenance of the Project being funded by the GRFMA via subscriptions from Constituent Councils.**

---

1. GOVERNANCE

➢ Strategic Plan/Council Policy

Goal 1	**People and business prosper**
Goal 4	**Explore ideas and work with others**
Strategy 4.6	Pursue opportunities to share resources and partner with others for better community outcomes

➢ Legal Implications

GRFMA is a Regional Subsidiary established under Section 43 and Schedule 2 of the *Local Government Act 1999*.

➢ Risk Management Implications

Committing to and supporting the GRFMA Northern Floodway Project will assist in mitigating the risk of:

> *Not reducing the impacts of recurring flood events in the Lower Gawler River Floodplain including the food production areas of Virginia and resulting in the GRFMA not being able fulfil its role as set out in the GRFMA Charter.*

Inherent Risk	Residual Risk	Target Risk
Extreme (4A)	Medium (2C)	Low

- **Financial and Resource Implications**

The Northern Floodway Project (refer to ***Appendix 2*** for a copy of the Preliminary Project Prospectus) is part of the Mark II Flood Mitigation Scheme requiring additional levee and other works to be undertaken in the Lower Gawler River Floodplain. This would provide increased flood protection to approximately 221 affected properties in the area and reduce flood impacts on the major food production activities in the Virginia area. The estimated total costs of implementing the Project is $27 million. It is noted that the 2016 flood event resulted in crop loses and damage to infrastructure in the region in excess of $50 million in the Virginia area.

The Constituent Councils are being requested to commit to and support the Northern Floodway Project to enable its progression subject to the State and Federal Governments entirely funding the planning, design and construction of the works as proposed. It is however, acknowledged that the GRFMA contribution is likely to be for the ongoing maintenance of the Northern Floodway post construction. How much this will cost the Constituent Councils has not been calculated at this stage, and further work in this regard will occur if the Project progresses (refer to page xvi of the Preliminary Project Prospectus Summary in ***Appendix 2***).

- **Customer Service and Community/Cultural Implications**

Implementation of the Northern Floodway Project will result in community benefits such as reduced flooding of properties, including the major food production area of Virginia, reduced infrastructure damage in the Lower Gawler Floodplain (including keeping Port Wakefield Road open during such events) and reducing flood hazard and impacts on local emergency access and evacuation routes, such as Angle Vale Road.

- **Environmental Implications**

Implementation of the Northern Floodway Project will result in environmental benefits such as reduced flooding and crop losses in prime agricultural areas around Virginia, and improved biodiversity within the Gawler River channel system as a result of selected vegetation removal, revegetation with appropriate species and a planned regular maintenance program.

- **Engagement/Consultation conducted with Council Committee, Regional Subsidiary, Advisory Group, the Administration and Community**

The GRFMA has consulted with Constituent Councils in the past in relation to the Floodplain Mitigation Options (considered by our Strategic Planning & Development Policy Committee on 12 April 2016 - Item 16.2) and the Gawler River Flood Review 2016 (considered by our Council on 24 January 2017 – Item 19.1). The two aforementioned reports essentially presented options for further flood mitigation works within the Gawler River floodplain which lead to the Northern Floodway Project being identified as an option going forward. In April this year, the GRFMA consulted with Constituent Council Administrations in relation to the Northern Floodway Project Prospectus (refer to ***Appendix 2***). Further, it is now consulting with Constituent Councils in relation to obtaining their commitment to and support for the Project. Further, if the Project proceeds, then extensive consultation with affected land and infrastructure owners (e.g. DPTI and ARTC) will be undertaken.

Council Committees:	The responses from the Constituent Councils in relation to the Northern Floodway Project will be considered by the GRFMA Board at its meeting scheduled for 21 June 2018
Council Workshops:	Not Applicable
Advisory Groups:	Not Applicable
Administration:	Chief Executive Officer Director Strategy and Development Manager Sustainable Assets, Engineering and Assets
Community:	Consultation with the affected landowners in the Lower Gawler Floodplain will occur if and when the State and Federal Government funding support is received enabling the Northern Floodway Project to proceed.

2. BACKGROUND

The Constituent Councils for the GRFMA are City of Playford, Adelaide Plains Council (formerly the District Council of Mallala), Town of Gawler, The Barossa Council, Light Regional Council and the Adelaide Hills Council.

The Gawler River catchment is fed predominantly by the North and South Para Rivers and it is via the latter that AHC is an interest in the Authority. The area surrounding the river produces cereal crops and sheep for both meat and wool, as well as market gardens, almond orchards and vineyards with an estimated farm gate output of $225 million in the Mallala, Gawler Belt and Virginia horticultural areas.

Following the successful construction of the flood control Dam on the North Para (known as the Bruce Eastick North Para Flood Mitigation Dam) in 2007 and modification of the South Para Reservoir Dam and spillway in 2012, the GRFMA Board initiated the Gawler River Flood Mitigation Scheme – Mark II. The GRFMA is responsible for the management and ongoing maintenance of the Bruce Eastick Dam, paid for via contributions from Constituent Councils. The Gawler River Flood Mitigation Scheme – Mark II includes:

- further development of the preliminary assessment of possible local area levees prepared in the 2008 Gawler River Floodplain Mapping Study at Gawler, Angle Vale and Two Wells and to develop a levee strategy for Virginia
- establishment of a protocol with the Floodplain Councils that where development of land in areas identified as 'at risk of flooding' is planned to proceed by the implementation of a local area levee that mapping of the proposed levees on the Gawler River Floodplain Mapping Study Model will be required
- to develop a funding strategy for flood protection that is delivered by local area levees on the questions of who should own and maintain the levees and whether local area levees are regional works that the GRFMA should fund or are they local works that are the responsibility of the local Council
- investigate opportunities for funding partners and grants to undertake the necessary assessments and designs.

The GRFMA Board is continuing flood mitigation initiatives outlined in the Mark II study.
The Gawler River has been subject to major flooding on average every 10 years over the past 160 years. In recent history, major events have occurred in 1992 (September, October, December), November 2005 and October 2016. The largest of these events, in October 1992, was estimated to have an average recurrence interval (ARI) of around 35 years. An estimated 200 homes were damaged during this event (The Advertiser October 29, 2012). Although no homes were damaged when the Gawler River broke its banks in November 2005, around $40 million worth of crops were lost along with significant damage to public infrastructure such as roads.

Most recently, the Gawler River catchment experienced significant rainfall between late September and early October 2016 with falls ranging typically between 100 to 140 mm in the upper North and South Para River catchments. This resulted in a major flood event in the lower reaches of the Gawler River, with an estimated ARI of 20 years. Although no homes were flooded, approximately 250 private properties along with local and state government infrastructure were severely affected by resultant flooding. Extensive loss of horticultural production and a significant damages repair bill in the order of $50 million resulted from the October 2016 event.

<u>The Northern Floodway Project</u>
The Northern Floodway concept was developed as part of the 2016 Flood Review which was considered by Council on 24 January 2017 (Item 19.1). This study was undertaken following the floods in the spring of 2016, in consultation with the GRFMA's Technical Assessment Panel and a Working Group formed to provide input to the selection of preferred flood mitigation solutions. The GRFMA engaged Tonkin Consulting to prepare a Prospectus Report in this regard which is attached in ***Appendix 2*** of this report.

Three recommendations arose from the 2016 Flood Review:

1. *"River and levee maintenance should be the responsibility of a single authority that has the necessary resources and access rights to maintain the river in good condition from a flood conveyance as well as biodiversity perspective*.
2. *River condition and levee maintenance repair work should be undertaken as a matter of high priority.*
3. *The GRFMA proceed with developing concept designs for the establishment of a Northern Floodway, in addition to the construction of a new river levee system so that consultation with affected landholders can proceed.*"

Recommendations 2 and 3 collectively form the 'Northern Floodway' proposal.

There are three primary elements forming part of the overall concept:

- Levee improvements (immediate and long term) and ongoing maintenance
- River channel works – including strategic sediment and vegetation removal and revegetation – and ongoing maintenance
- A new levee and floodway system downstream of Old Port Wakefield Road to contain floodwaters within a defined floodway system on the northern side of the river (The 'Northern Floodway').

To date the Northern Floodway has only been analysed in detail for the 2016 flood event, estimated to represent roughly a 20-year ARI event. Although not tested under larger flood events (50 or 100 years), it is expected that the floodway will also perform well in a 50-year ARI event.

Future modelling is expected to confirm whether the floodway is capable of achieving a 100-year standard with minor refinements, and if so it is anticipated that this level of protection would be a significant selling point for securing community support. The 100-year event is typically the standard level of protection expected as a result of major new flood mitigation proposal and is a benchmark for flood protection in many development plans.

The Board has over the years considered a number of additional flood mitigation options as part of the Mark II Scheme in order to increase the level of flood protection within the lower Gawler River Floodplain. These options have ranged from building an additional dam to undertaking the works as proposed as part of the Northern Floodway Project. The estimated costs of the various options ranged from $27 million to $64 million. Council considered Confidential reports in this regard on 12 April 2016 (SPDPC) and on 24 January 2017 where it resolved:

19.1.1. Preliminary Draft Report Gawler River 2016 Flood Review – GRFMA – Confidential Item

RELEASED 4 JULY 2017

Moved Cr Malcolm Herrmann **17**
S/- Cr Linda Green

Council resolves:

1. **That the report be received and noted**

2. **That the GRFMA be advised:**

   a. **Recommendation 1 and 2 are supported as there is a need to establish a single authority to manage the levees and the river to ensure the integrity of any flood management system within the Gawler River Flood Plain but taking on this management task should not result in increased liability risks to the authority, and**
   b. **Recommendation 3 is supported providing there is a commitment from the State Government to provide the majority funding required for the design, consultation and implementation of the floodway and river levee system.**
   c. **Adelaide Hills Council would need to consider a further report if the floodway and upgrade of the river levee works is not fully funded by State and Federal Government to assess the impact this may have on Constituent Councils.**

Carried

At the Special GRFMA Board meeting held on 17 May 2018, the Board resolved:

GRB 18/34 Northern Floodway Project

Moved: Cr M Lawrence Seconded: Mr. J Miller

That the GRFMA:

1. **Resolve to continue progressing the Northern Floodway Project as a priority, subject to:**
   a. **The Federal and State Governments confirming in writing a commitment to fund in totality all capital costs including the further design; and development costs associated with the Northern Floodway Project.**
   b. **Acknowledging the GRFMA contribution will be responsibility for the ongoing maintenance of the Northern Floodway; and**
   c. **The GRFMA seeking formal commitment from all constituent Council's on progressing the Northern Floodway Project on this funding principle.**
2. **Request the Chair of the GRFMA to advise the Federal and State Government of this approach.**

CARRIED UNANIMOUSLY

In accord with resolution 1. c. above, Council received a letter from the Independent Chair of the Board, Mr Ian Baldwin, on 18 May 2018 (refer ***to Appendix 1***) seeking Council's support and commitment for the progression of the Northern Floodway Project. Hence this report.

3. ANALYSIS

On the basis of investigations undertaken following the 2016 flood event, the following benefits are anticipated to result from the Northern Floodway implementation, during a flood event of similar magnitude to that of 2016:

- Protection of 211 of the 248 properties estimated to be flooded in 2016.
- Reduced flooding of another 10 properties. Similar protection is expected in the 50-year event
- Substantially reduced flood damages through the protection of the high value horticultural lands around Virginia
- No flooding of the existing Virginia Township or re-zoned residential / deferred urban areas within the Virginia Growth Precinct
- No overtopping of Port Wakefield Road, maintaining use of the critical A1 transport route
- Reduced flood hazard and impacts on local emergency access and evacuation routes, such as Angle Vale Road
- Improved biodiversity within the Gawler River channel system as a result of selected vegetation removal, revegetation with appropriate species and a planned regular maintenance program.

Further modelling will be required to quantify the benefits during other flood events.

Although our Council is not affected by the flood events in the Lower Gawler River, it is considered that the collaboration of the Constituent Councils over the years has resulted in the ability to leverage and secure the relevant State and Federal Government Funding for flood mitigation initiatives. As outlined in the recent Board Chair's letter, such continued collaboration is critical to securing the additional funding required for the Northern Floodway

Project. It is therefore considered that Council provide its support and commitment in order for the Board to progress this Project and achieve the intended benefits as outlined above. The Administration is therefore recommending that Council commits to and supports the Northern Floodway Project subject to the planning, design and construction being funded entirely by the Federal and State Governments. Note that the Northern Floodway Project can only progress with the majority support and commitment of the Constituent Councils.

4. OPTIONS

Council can determine to either:

I. Support and commit to the Northern Floodway Project subject to the planning, design and construction being funded entirely by the Federal and State Governments (Recommended)

II. Not support or commit to the Northern Floodway Project (Not Recommended).

5. APPENDIX

(1) Letter from the GRFMA Board Chair
(2) Northern Floodway - Preliminary Project Prospectus

Appendix 1

Letter from GRFMA Board Chair

Gawler River Floodplain Management Authority
266 Seacombe Road, Seacliff Park, SA 5049
Telephone: 0407717368 Email: davidehitchcock@bigpond.com
Website: www.gawler.sa.gov.au/grfma

Andrew Aitken
Chief Executive Officer
Adelaide Hills Council
28 Onkaparinga Valley Road
Woodside SA 5244

By email mail@ahc.sa.gov.au

18/5/18

Dear Andrew

Re: Northern Floodway Project

I am writing regarding the Northern Floodway Project to seek Councils support and commitment for progress.

As you will be aware the Gawler River 2016 Flood Review report provides three recommendations for works to be undertaken:

a) proposed Gawler River Northern Floodway,
b) upgrade and maintenance of the existing levee system and
c) management of silt and pest vegetation;

Initial estimated costs for the Project are $27 million.

The GRFMA has previously resolved to progress the report recommendations in 2018 and has commissioned development of a "Project Prospectus" document which outlines a 'staged' approach to quantify required works, engagement of all stakeholders and a clear project feasibility pathway for funding options.

The document is now being finalised and will be provided to constituent council members shortly.

With regard to funding for the Project, the GRFMA has been working with both the State and Federal Governments exploring funding options to initiate the required works.

Previous discussion with Ian Hunter MLC, then Minister for Sustainability Environment and Conservation, Minister for Water and River Murray indicated support for funding via application to the State Government's Storm Water Management Authority.

The Minister's expectation was that capital costs would be shared equally in one-third contributions between the Federal Government and the State Government and the GRFMA constituent councils. The GRFMA being responsible to further fund ongoing operational and maintenance costs.

Discussions were also held with Senator, the Hon Anne Ruston, Assistant Minister for Agriculture and Water, on the proposal and to facilitate follow up with Prime Minister Malcom Turnbull's previous commitment to assist with flood mitigation measures in the Gawler River floodplain.

Senator Ruston proposed a view that a tri-partite capital works funding model did not adequately address the total cost of the proposed flood mitigation project, and that her approach for Federal Government funding would request that the State and Federal Governments each cover 50% of the projects capital costs as a minimum with Local Government (i.e., the GRFMA) contributing to the ongoing operational and maintenance costs.

The GRFMA Board unanimously support the Senator's approach as it is inequitable that constituent councils would effectively be contributing "twice" if required to contribute to Capital and subsequent ongoing maintenance and operating costs.

At the 17/5/18 Special Meeting of the GRFMA, Board Members advised of recent discussions with Senator Ruston which indicated that funding resources are available for the proposed project, however the window of opportunity for funding and Federal Government support is fast closing and the GRFMA should act with priority to indicate commitment to implementing the proposed Northern Floodway Project.

Discussions also noted that the recent South Australian election change to the Marshall State Government will now provide opportunity for further considered discussion between Federal and State Government on meeting the capital funding contributions required for the project.

The 17/5/18 Meeting subsequently resolved the following motion.

That the GRFMA:

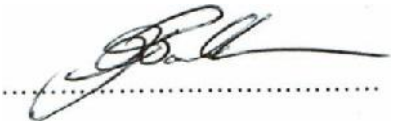
1. *Resolve to continue progressing the Northern Floodway Project as a priority, subject to:*
    a. *The Federal and State Governments confirming in writing a commitment to fund in totality all capital costs including the further design; and development costs associated with the Northern Floodway Project.*
    b. *Acknowledging the GRFMA contribution will be responsibility for the ongoing maintenance of the Northern Floodway; and*
    c. *The GRFMA seeking formal commitment from all constituent councils on progressing the Northern Floodway Project on this funding principle.*

2. *Request the Chair of the GRFMA to advise the Federal and State Government of this approach.*

In accordance with the above GRFMA resolution, I now seek indication of Council's commitment to progressing the Northern Floodway Project.

Your cooperation is respectfully sought in including this matter in the next Council Meeting Agenda and subsequent indication of Council's consideration of this matter being provided to davidehitchcock@bigpond.com.

Yours Sincerely



Ian Baldwin
Chair, GRFMA

Appendix 2

Northern Floodway - Preliminary Project Prospectus

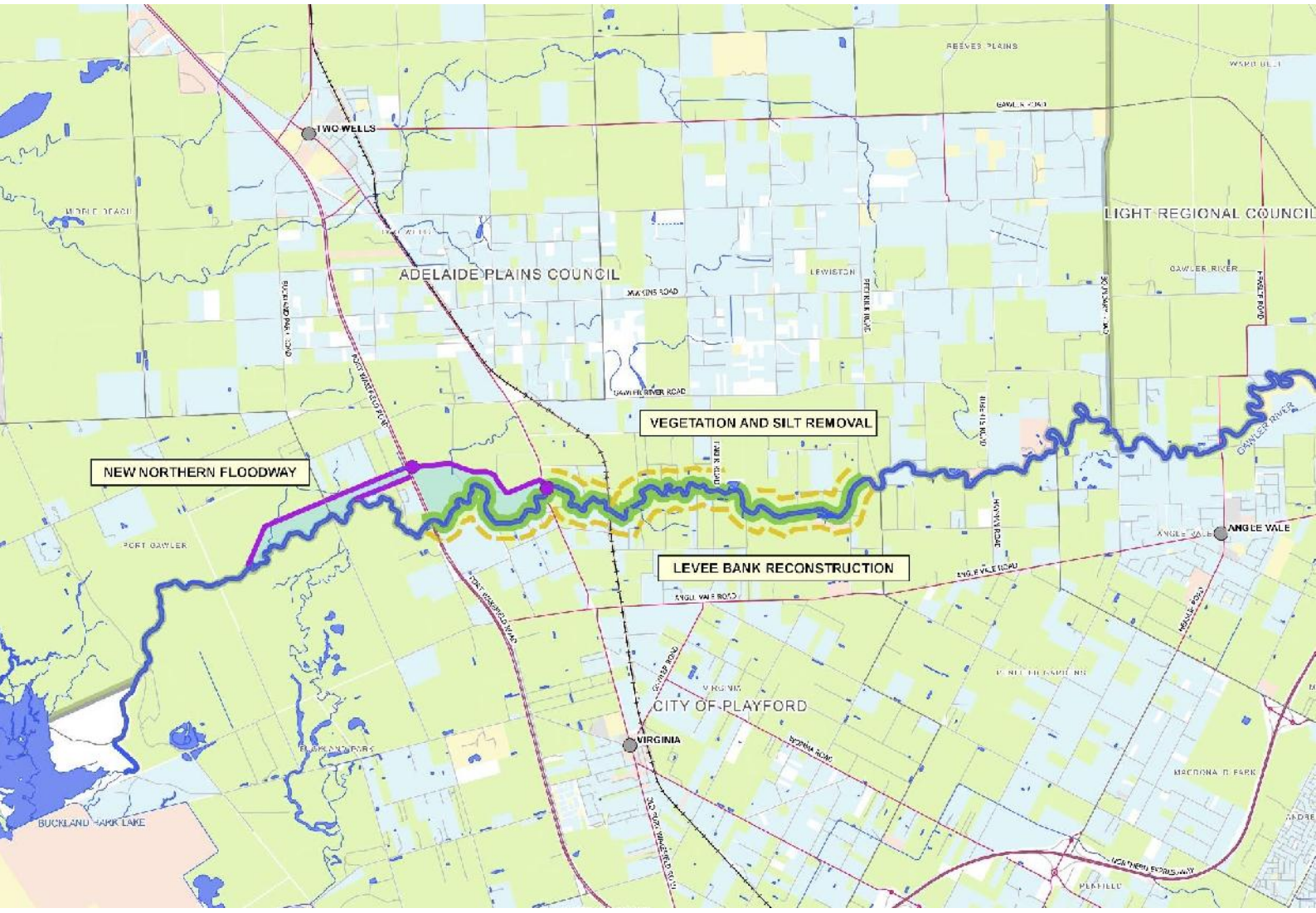
Northern Floodway

Preliminary Project Prospectus

Gawler River Floodplain Management Authority

June 2018

Ref No. 20180193



Tonkin CONSULTING

Document History and Status

Rev	Description	Author	Reviewed	Approved	Date
A	Outline for Client comment	SEM		SEM	13 March 2018
B	First draft for comment (incomplete)	SEM		SEM	29 March 2018
C	Completed Draft for review	SEM	KRD/MdH	SEM	13 April 2018
D	Draft final	SEM	KRD/MdH	SEM	17 April 2018
E	Final (draft) for approval	SEM		SEM	5 June 2018

Contents

PART 1 Summary Document

Summary

Purpose of this document

This document provides details of the Gawler River Northern Floodway proposal, a key component of the Gawler River Flood Mitigation Scheme Mark II.

Outlined within is a summary of the flooding issues experienced within the lower Gawler River and why a flood mitigation solution, specific to the lower Gawler River is required. The benefits of the proposal are explained, largely in non-monetary terms.

The document provides details of the steps required to progress the project, commencing with a definition of the project objectives and further scope confirmation works to firm up the concept. High order capital costs are also provided, along with the budgetary commitment required for each of the project development stages.

The document is intended to serve as a key reference document for potential funding partners and a guide for the project's ultimate implementation.

Funding model

The GRFMA is committed to progressing the Northern Floodway Project as a priority, subject to The Federal and State Governments confirming a commitment to fund all capital costs, including further design and development costs, associated with the Northern Floodway Project. The GRFMA acknowledges that ongoing operational and maintenance costs associated with the Northern Floodway will be its responsibility.

The GRFMA has sought formal commitment from all constituent Councils on progressing the Northern Floodway Project on this funding principle.

The Gawler River

The Gawler River flows in a westerly direction across the Northern Adelaide Plains from the confluence of the North Para and South Para Rivers just downstream of Gawler Township, to the Gulf St Vincent at Port Gawler.

The lower Gawler River floodplain, defined as the areas to the west of Pederick Road at Lewiston, lies within the local government areas of the Adelaide Plains Council and City of Playford. Land use within the floodplain is characterised by a mixture of intensive residential and commercial development in the growth areas of Angle Vale, Virginia and Two Wells, rural living areas, intensive animal husbandry and high value horticulture.

The capacity of the river diminishes markedly from east to west, with a capacity of around 400 m^3/s near Gawler, to around 70 m^3/s at Port Wakefield Road and less than 10 m^3/s near Buckland Park lake, adjacent the coast. The diminishing capacity of the river channel heading downstream leads to flooding of the lower Gawler River and it's floodplain on a relatively regular basis.

Levees, both natural and man-made exist along much of the lower river's length, however these are generally in a poor state of repair and are prone to failure during major flood events.

Levee bank failure during 2016 flood event resulting in flooding of horticultural areas.

Flooding of the Gawler River

The Gawler River has been subject to major flooding on average every 10 years over the past 160 years. Earliest accounts date back to the mid-1800s with reports of the North and South Para and Gawler Rivers becoming "sweeping torrents" and washing away several houses at Buchesfeld (west of Gawler township). In recent history, major events have occurred in 1992 (September, October, December), November 2005 and October 2016.

The largest of these events, in October 1992, was estimated to have an average recurrence interval (ARI) of around 35 years[1]. An estimated 200 homes were damaged during this event (The Advertiser October 29, 2012). Although no homes were damaged when the Gawler River broke its banks in November 2005, around $40 million worth of crops were lost along with significant damage to public infrastructure such as roads.

Most recently, the Gawler River catchment experienced significant rainfall between late September and early October 2016 with falls ranging typically between 100 to 140 mm in the upper North and South Para River catchments. This resulted in a major flood event in the lower reaches of the Gawler River, with an estimated ARI of 20 years.

Although no homes were flooded, approximately 250 private properties along with local and state government infrastructure were severely affected by resultant flooding. Extensive loss of horticultural production and a significant damages repair bill in the order of $50 million resulted from the October 2016 event.

[1] The average recurrence interval (ARI) of a flood event is the number of years on average within which a given flood will be equalled or exceeded. For example, a 100-year ARI event may occur on average once in 100 years. Floods may also be expressed in terms of 'Annual Exceedance Probability' (AEP), which describes the probability of occurrence in any given year. A 100-year ARI event, has an AEP of 1%. Refer to Section 9 for further details.

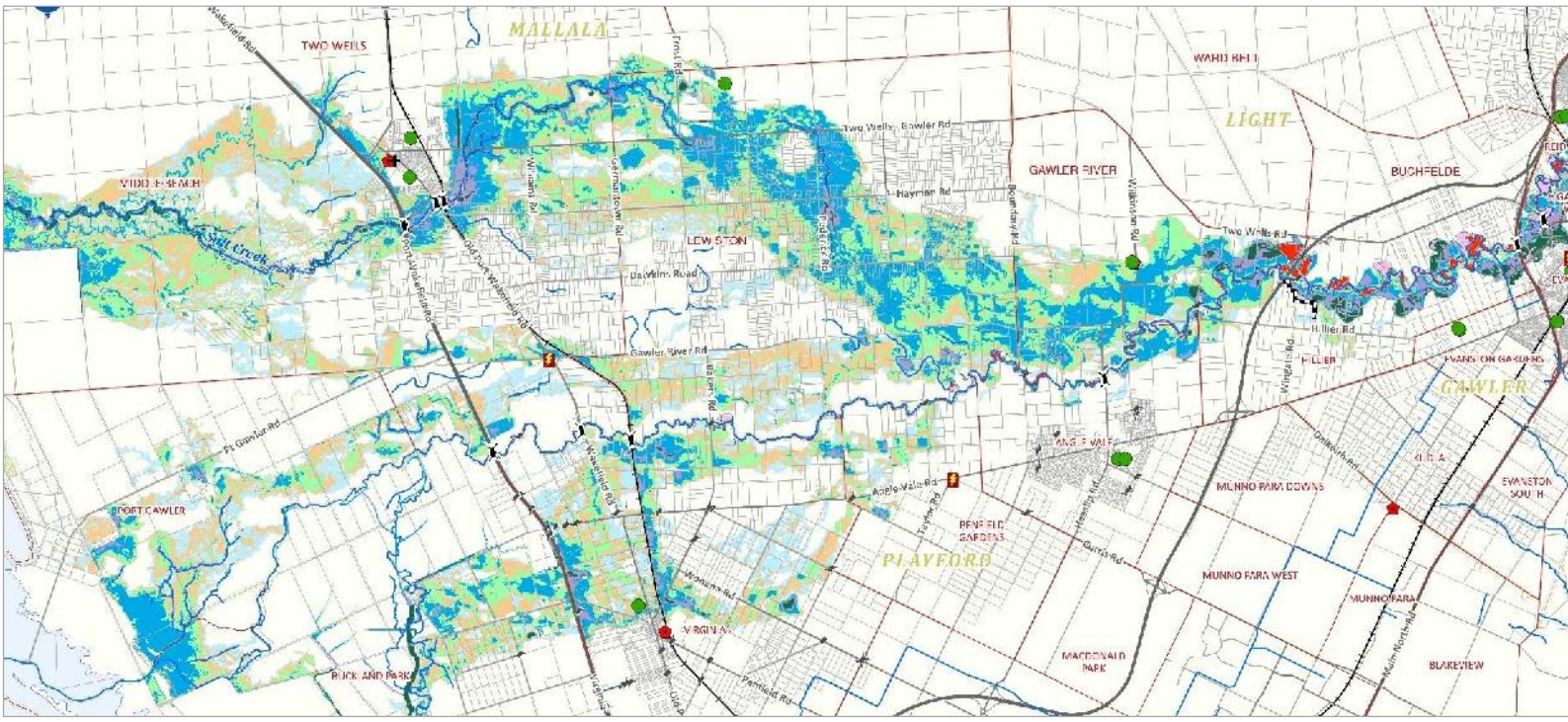
Flooded horticultural areas near Virginia, 2016

In response to the regularity of flooding, and its impacts on the local communities, the Gawler River Floodplain Management Authority (GRFMA) was formed in 2002 as a Regional Subsidiary under Section 43 and Schedule 2 of the Local Government Act 1999, principally to manage the implementation of a strategy to mitigate flooding.

To date, works have been completed upstream of Gawler to reduce flood flows within the North Para and South Para Rivers, reducing the impacts of flooding within Gawler Township, and to a lesser extent the lower Gawler River. The works include construction of the Bruce Eastick North Para Flood Mitigation Dam (completed in 2007) and alterations to the South Para Reservoir spillway (completed in 2012).

What is the flood risk and estimated economic cost of flooding?

Major overtopping of the banks of the Gawler River is expected to occur for much of the river's length for events larger than a 10-year Average Recurrence Interval (ARI). For the 100-year ARI event, computer modelling indicates a series of major breakouts occur around Boundary Road, where a significant proportion of floodwaters spill to the north towards Lewiston and Two Wells. Further, smaller breakouts occur downstream of Boundary Road, including spill to the south which will impact the Virginia township and associated growth precinct. Floodwaters overtop the major A1 transport route, Port Wakefield Road, to the west of Virginia and west of Two Wells, before flowing around the proposed Buckland Park development area to the sea.



100 year ARI flood extent – current scenario (from AWE 2015)

The modelling indicates over 3000 residential allotments, 200 industrial allotments and 6000 ha of agricultural area would be flood affected in the 100-year ARI event, this being the flood event which might occur on average once in a hundred years or in any given year has a 1% chance of occurring.

Much of the floodplain area is prime horticultural and agricultural land, which continues to expand and forms part of the Northern Food Bowl. The population centres of areas of Angle Vale, Two Wells and Virginia will also continue to grow under the 30-year growth plan for Adelaide, with growth in some areas, including Virginia, currently limited by flood risk.

Flood damage estimates, calculated using the results of the modelling for the existing floodplain scenario were prepared in 2016, following construction of the Bruce Eastick North Para Flood Mitigation Dam, which reduced the impacts of flood events less than the 50-year event, particularly within the Gawler township.

The damage calculations estimate the average annual damage within the floodplain to be $7.4m, with present value damages of $109m.

These calculations are based on the existing catchment development state, and do not take into account potential damages ariding from expanding residential, commercial and industrial development associated with the 30-growth plan for Adelaide, nor expanding primary production, horticultural and rural lands associated with the Northern Food Bowl. It also only values loss to export crops, if local crops are included the damage estimates would increase.

What is the Northern Floodway?

The Northern Floodway concept was developed as part of the 2016 Flood Review, a study undertaken following the floods of Spring 2016, in consultation with the GRFMA's Technical Reference Panel and a Working Group formed to provide input to the selection of preferred flood mitigation solutions.

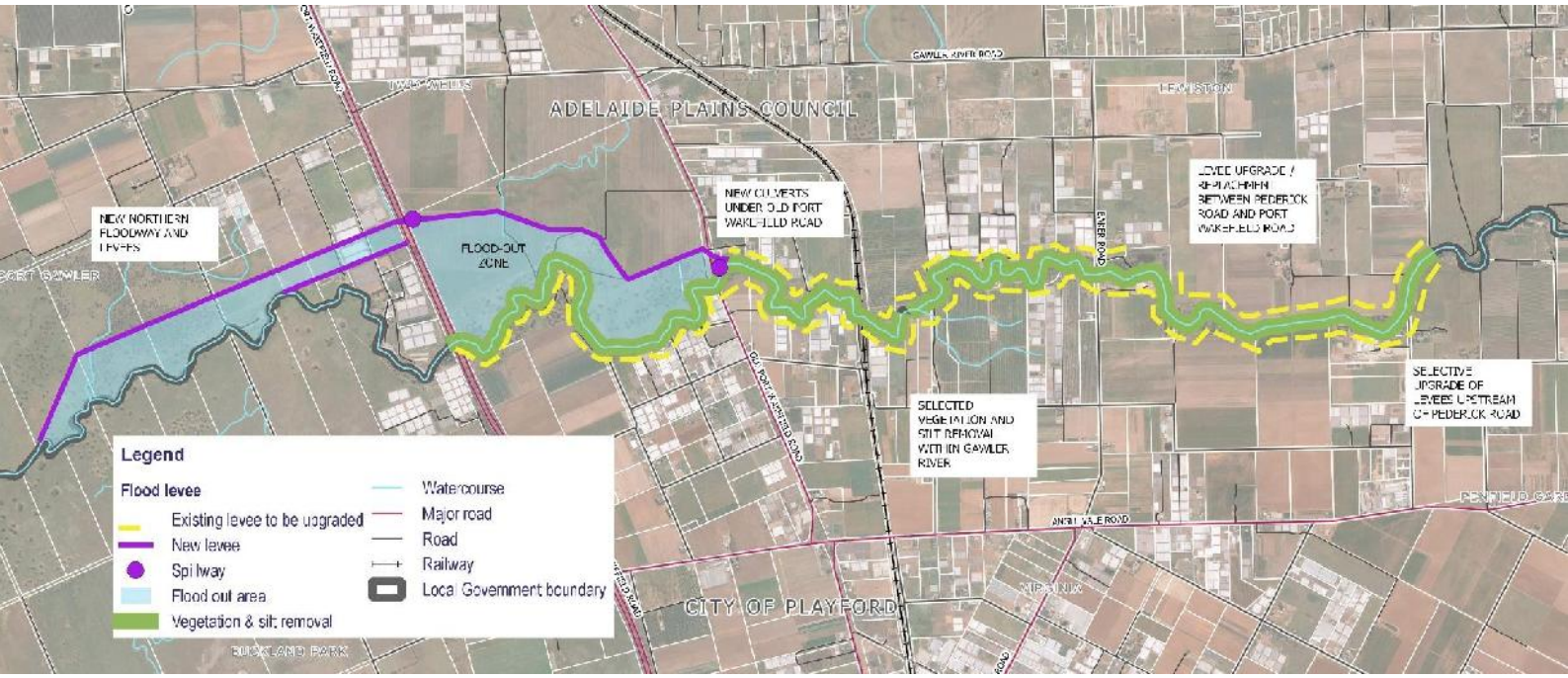
Three recommendations arose from the 2016 Flood Review:

Recommendation 1: "*River and levee maintenance should be the responsibility of a single authority that has the necessary resources and access rights to maintain the river in good condition from a flood conveyance as well as biodiversity perspective*."

Recommendation 2: "*River condition and levee maintenance repair work should be undertaken as a matter of high priority."*

Recommendation 3: "*The GRFMA proceed with developing concept designs for the establishment of a Northern Floodway, in addition to the construction of a new river levee system so that consultation with affected landholders can proceed."*

Recommendations 2 and 3 collectively form the 'Northern Floodway' proposal, shown below.



Elements of the Northern Floodway proposal

There are three primary elements forming part of the overall concept:

- Levee improvements (immediate and long term) and ongoing maintenance
- River channel works – including strategic sediment and vegetation removal and revegetation – and ongoing maintenance
- A new levee and floodway system downstream of Old Port Wakefield Road to contain floodwaters within a defined floodway system on the northern side of the river (The 'Northern Floodway').

Recommendation 2 acknowledges that there are immediate issues that could be addressed to reinforce the levee system and reinstate channel capacity at known problem locations whilst the longer-term, more significant mitigation strategy is progressed. Whilst the channel and levee works forming part of Recommendation 2 are not considered effective at mitigating large-event flooding in their own right, it is expected that these would provide an immediate benefit during smaller, more frequent events. Recommendation 2 and 3 are complementary, with the investigation and implementation work associated with Recommendation 2 forming the early stages of Recommendation 3.

Throughout this document, the river channel works and immediate levee repair works are referred to as “immediate works” whilst the new Northern Floodway and more extensive levee upgrades are referred to as “long term works”.

Why do we need a Northern Floodway?

To date, flood mitigation within the Gawler River catchment has focussed on works to reduce peak flows within the North Para and South Para Rivers which combine to form the Gawler River. Whilst effective, there is a limit to the amount of flow reduction the dams on these rivers can achieve, even if the capacity of the Bruce Eastick North Para Flood Mitigation Dam is increased.

The naturally diminishing capacity of the Gawler River channel as it flows west means that no single flood mitigation solution to control flooding for the river’s entire length during significant flood events is feasible, as the capacity of the lower reaches of the river is so limited.

The effect of increasing the capacity of the Bruce Eastick North Para Flood Mitigation Dam by raising the dam wall by 10 m was investigated in 2016 (AWE 2016). The modelling indicated that the 100-year ARI flood peak could be reduced from 635 m^3/s to 170 m^3/s at Gawler, with significant benefits to Gawler township and properties and townships on the northern side of the river. Despite this, due to the channel’s limited capacity further west (around 70 m^3/s at Port Wakefield Road), breakouts still occur on the southern side of the river near Virginia and horticultural areas will be subject to flooding, presumably in a similar manner to that which occurred in 2016.

This indicates that even with a larger upstream flood mitigation dam, supplementary flood mitigation works are required in the lower reaches of the river to prevent flooding of property, closure of roads, potential damage to infrastructure and loss of crops.

The Northern Floodway aims to address this flooding, specific to the lower Gawler River. The Northern Floodway will not prevent the large breakout which occurs around Boundary Road and flows north west towards Two Wells.

What are the benefits?

To date the Northern Floodway has only been analysed in detail for the 2016 flood event, estimated to represent roughly a 20-year ARI event. Although not tested under larger flood events (50 or 100 years) it is expected that the floodway will also perform well in a 50-year ARI event.

Future modelling is expected to confirm whether the floodway is capable of achieving a 100-year standard with minor refinements, and if so it is anticipated that this level of protection would be a significant selling point for securing community support. The 100-year event is typically the standard level of protection expected as a result of major new flood mitigation proposal and is a benchmark for flood protection in many development plans.

On the basis of investigations undertaken following the 2016 flood event, the following benefits are anticipated to result from the Northern Floodway implementation, during a flood event of similar magnitude to that of 2016:

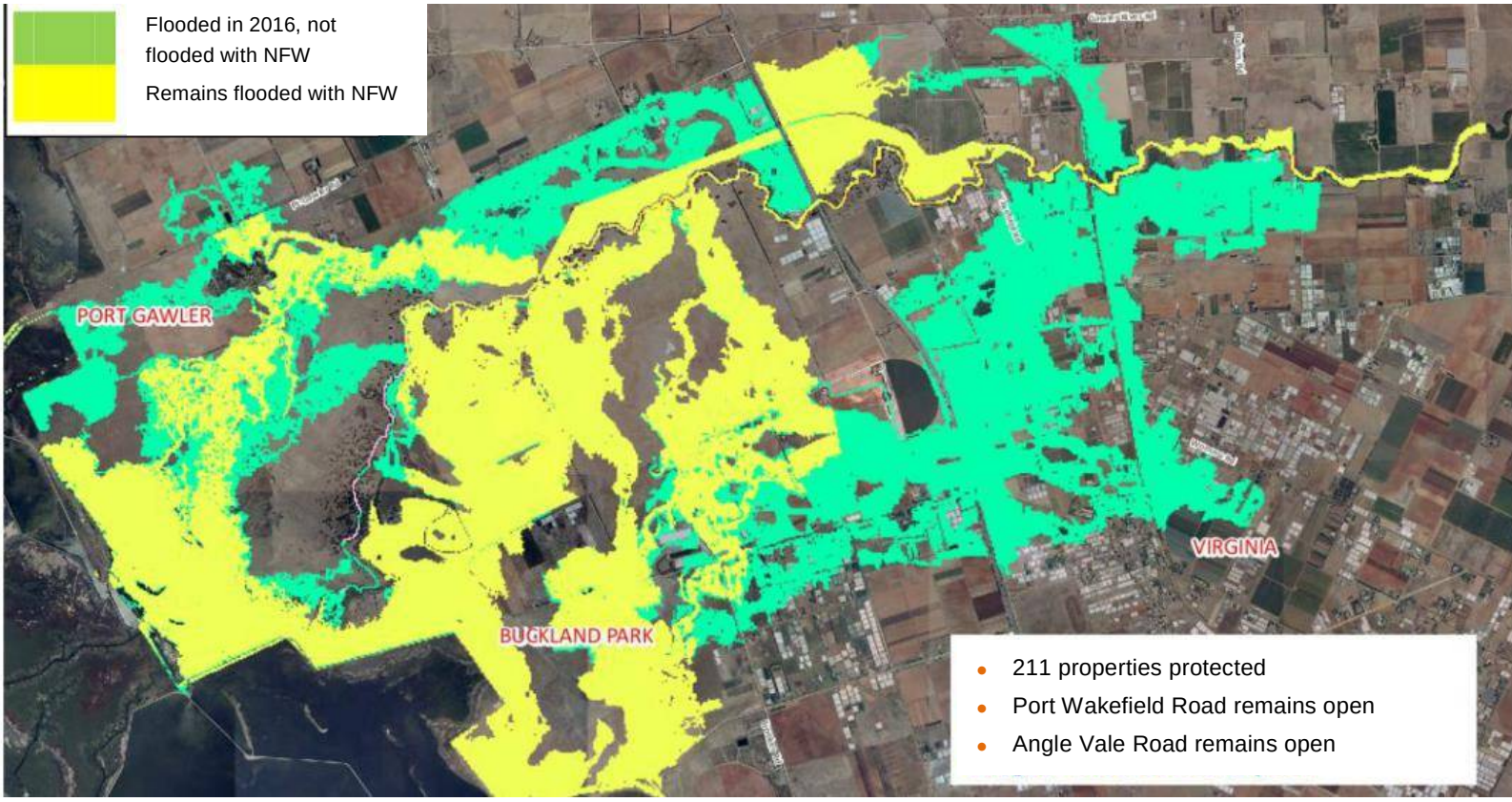
- *Protection of 211 of the 248 properties estimated to be flooded in 2016. Reduced flooding of another 10 properties. Similar protection is expected in the 50-year event.*
- Substantially reduced flood damages through the protection of the high value horticultural lands around Virginia.
- No flooding of the existing Virginia Township or re-zoned residential / deferred urban areas within the Virginia Growth Precinct.
- No overtopping of Port Wakefield Road, maintaining use of the critical A1 transport route.

- Reduced flood hazard and impacts on local emergency access and evacuation routes, such as Angle Vale Road.
- Improved biodiversity within the Gawler River channel system as a result of selected vegetation removal, revegetation with appropriate species and a planned regular maintenance program.

Further modelling will be required to quantify the benefits during other flood events.

Calculations needed to calculate the project's cost benefit ratio have not yet been undertaken to quantify the expected reduction in flood damages.

The reduced extent of flooding during the 2016 event, with the floodway works and upgraded levees in place, is illustrated below (flood free areas shown in green).



The 2016 flood event, modelled with and without the Northern Floodway works (from AWE 2017)
Note: this modelling assumes the Buckland Park development is not completed.

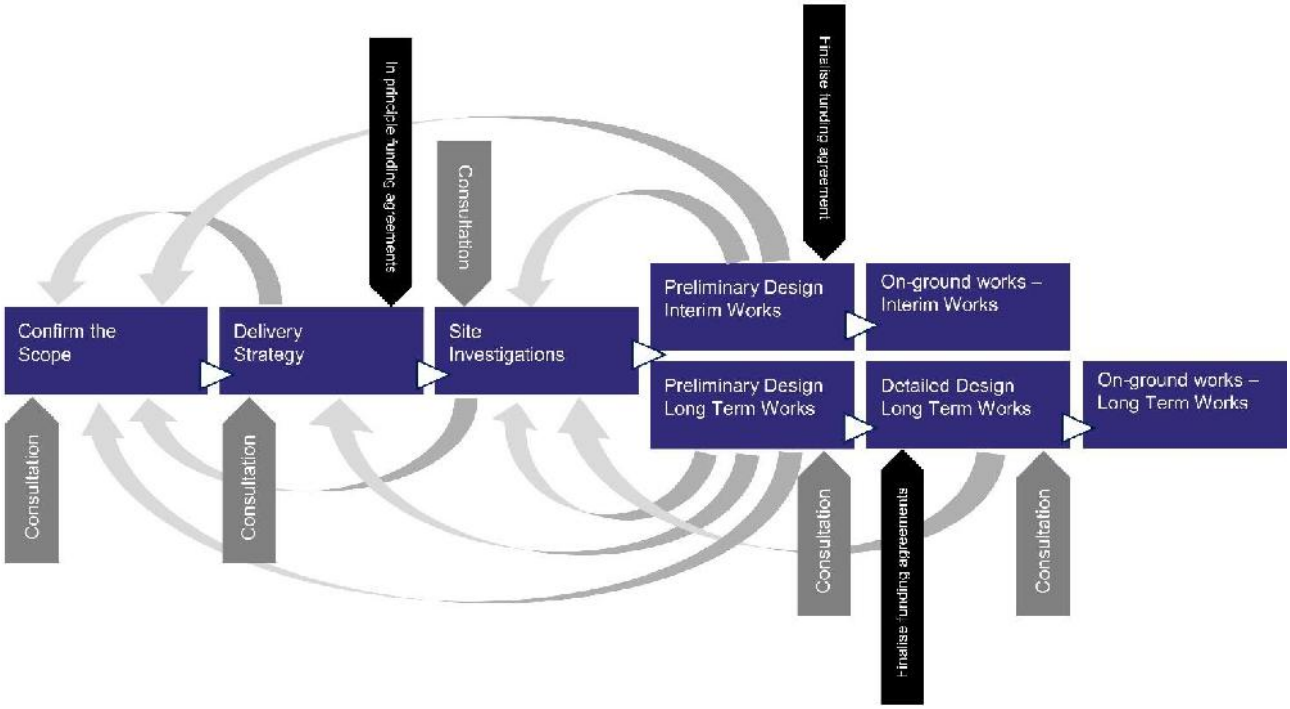
How will the project progress?

To date a desktop only study has been completed to determine the feasibility, and effectiveness, of the Northern Floodway concept. This has relied upon the results of hydraulic modelling to inform the infrastructure requirements such as the need to upgrade existing levees, culverts and bridges, and the need for new levees and floodways. No site investigations have been undertaken to validate the project's feasibility and to date, stakeholder consultation has been limited to the Technical Assessment Panel and Northern Floodway Working Group.

The current estimated project cost of $27m has been estimated on the basis of the desktop investigation and modelling.

In order to progress the implementation of the Northern Floodway works (Recommendations 2 and 3) a number of key investigations and pieces of work will need to be undertaken.

Within this document, the proposed works are structured into a number of key project 'stages', as depicted below. The scope of works required for future stages will be reviewed throughout, or at least at the conclusion of each stage.



Key project development elements

It is proposed to progress the river condition and immediate levee repair works (Recommendation 2 – referred to as 'immediate works') as a matter or priority, subject to funding, establishment of landholder access agreements and approvals to undertake the works. It is anticipated that the necessary funding and approvals could be gained within a shorter timeframe than the body of work required to enable commencement of on-ground works associated with the long-term Northern Floodway and levee replacement (Recommendation 3).

Extensive consultation will be undertaken throughout all stages of the project's development, along with regular review of risks and review and updating of the project's estimated cost at key milestones.

Confirm the scope

A key first step in progressing both Recommendation 2 and 3 will be to confirm the scope of works necessary to achieve the desired level of flood mitigation. This will be achieved through a combination of additional modelling, site investigations and early engagement with stakeholders.

Tasks will include:

- Additional flood modelling and estimating reduction in damages (future flood damages avoided)
- Consideration of project staging
- Ground truthing / site walkovers:
  - Further inspection of existing levees (where feasible) to determine those sections in need of immediate remedial works
  - River condition survey, including vegetation assessments and identification of areas of silt build up

  - Ground truthing of new levee and floodway proposals
- Redefining or confirming the project scope
- Early consultation / presentation of information
- Confirmation of preliminary cost estimates
- Determination of first order cost–benefit

Delivery strategy

A clearly defined delivery strategy for such a complex project is a must to manage risks, capitalise on opportunities, keep the project on track from a time and budget perspective, and ensure that the support of stakeholders and the broader community is firstly gained, and then maintained over the long term.

Mapping out a framework for delivery of the project will include:

- Clearly defining the project objectives
- Setting the project governance and project management framework
- Appointment of a Project Manager
- Investigating options for access to land for site investigations and immediate works, ownership of assets and land tenure, including property acquisition
- Determining and mapping out planning requirements and approvals
- Investigating procurement options and determining delivery model(s)
- Risk planning and management
- Setting a consultation strategy
- Project execution planning, including development of an implementation plan aligned to project funding.

Site investigations

A range of site investigations will be undertaken at the preliminary design stage to further confirm the scope of works and cost estimates. Whilst some investigations could be deferred to the detailed design phase, undertaking these investigations at preliminary design stage will assist in the management of key project risks such as scope and budget.

Site investigations will require some clearance of vegetation on existing levee banks to allow access for the following:

- Engineering and cadastral survey
- Geotechnical investigations
- Heritage surveys
- Service locating and depthing.

Preliminary design – immediate river condition and levee works

The site walkovers, vegetation assessments and levee surveys are expected to largely inform the scope of works required for the immediate works to improve river condition (vegetation and silt removal and revegetation program) and immediate repair works to prevent failure of levees during the next flood event.

It is anticipated that preliminary level design should provide sufficient information for the works to be procured via a ‘design and construct’ contract, with considerations such as temporary works to be determined by the contractor.

Preliminary design Northern floodway – long term flood mitigation works

Preliminary design of the Northern Floodway, including new levee banks, will achieve notionally 70% design documentation, sufficient to more accurately determine the physical scope of works and footprint, and develop more accurate cost estimates.

The preliminary design will be based largely upon the outcomes of the scope confirmation, and reflective of the site investigations, together with feedback received through the consultation process and any other investigations undertaken as part of the development of the delivery strategy.

Documentation will include preliminary design drawings suitable for cost estimation by a Quantity Surveyor.

Detailed design

Detailed design will include final design activities, any additional site investigations required and documentation of the works to enable tender and construction. Final approvals will be gained throughout the detailed design phase.

At the completion of the detailed design, pre-tender cost estimates will be prepared by a Quantity Surveyor.

Procurement

Extensive documentation will be required, including consideration of staging of the works to suit the available budget. This stage involves preparation of documentation through to award of contracts.

How much will it cost to progress the project to on-ground works?

As summarised above, there is a significant amount of planning, investigative and design work to be done prior to undertaking any on-ground works.

Indicative costs associated with the major stages of work are summarised below.

Stage	Indicative cost
Confirm the Scope	$165,000
Delivery Strategy	$145,000
Project Management (assuming full time resource, 2-year contract)	$240,000-$300,000
Site investigations	$395,000
Preliminary Design – immediate works	$120,000
Preliminary Design – long term works	$195,000
Detailed Design – long term works	$255,000
Contractor Procurement – long term works	$100,000

How much will the Northern Floodway cost?

Order of magnitude estimates for the cost to implement the Northern Floodway works, including the immediate river and levee remedial works, were prepared as part of the 2016 Flood Review project.

The estimate included allowance for design (concept and detailed), tender and administration, land acquisition and construction. A 30% contingency was allowed on the total, reflective of the feasibility level of work that has been undertaken to date.

The current estimate is summarised below. 'Detailed Design' costs differ from the cost provided above ($125,000 vs. $255,000) due to additional inclusions in the above design cost estimate.

Element	Indicative cost *
Concept Design	$350,000
Detailed Design	$125,000
Tender and administration	$100,000
Land acquisition	$9,170,000
Construction	$11,182,684
Sub-total	***$20,927,684***
Contingency	$6,278,305
Total	**$27,000,000**

* *From AWE (2017)*

Excluding design (concept and detailed) and tender and administration costs, the capital construction cost is $14.5m, plus $11.9m land acquisition, including a 30% contingency allowance.

The above costs are for the implementation of immediate works as well as long term works. No breakdown of the costings is available, nor has any consideration been given to staging of the works.

A key step in progressing the implementation of the works will be updating the capital cost estimates (including land acquisition) at a number of milestones, including the scope confirmation stage, agreement on land tenure options (acquisition / compensation costs), preliminary design and detailed design / pre-tender.

At preliminary design stage, the services of a suitably qualified quantity surveyor will be engaged to prepare cost estimates for the various elements of the works. The services of a property consultant will be engaged to assist with the estimation of costs associated with securing the required access to land for the purposes of implementing the on-ground works.

Floodway maintenance

Ongoing maintenance of the Gawler River channel, levees and floodway will be required to maintain the new system to fulfil its intended flood mitigation function. Annual or scheduled maintenance is likely to come at significant cost to maintain the levees in good repair, and prevent the river returning to an overgrown state. Maintenance of the floodway system will be the responsibility of the GRFMA.

Maintenance costs, especially those related to levee maintenance, are likely to be driven by the extent of work undertaken during the construction phase. For example, if all levees are cleared and reconstructed with safe, trafficable crests, maintenance will be far easier and cheaper than maintaining levees with irregular cross sections not able to be safely accessed by vehicle. This is principally because it will enable maintenance tasks (level survey, inspections, weed spraying, repairs) to be undertaken by vehicle, rather than on foot.

Operations and maintenance costs will be estimated following confirmation of the project scope, and again following completion of the preliminary designs.

Implementation Schedule

Following the flood event of 2016, there is a renewed urgency to progress works that will afford a greater level of flood protection to properties in the lower Gawler River floodplain.

Whilst the new Northern Floodway and long-term levee upgrades are generally considered to be the major component of work associated with the overall proposal, the works to be undertaken as part of Recommendation 2 will provide some improved flood conveyance in the short term, at least during smaller events. It is therefore proposed to progress the river condition and immediate repair levee works as a matter or priority, subject to funding, establishment of landholder access agreements and approvals to undertake the works. It is anticipated that the necessary funding and approvals could be gained within a shorter timeframe than the body of work required to enable commencement of on-ground works associated with the Northern Floodway and levee replacement.

Construction may need to be undertaken in stages based on priority of works, legal issues and access availability and available budget. A detailed implementation plan will be prepared as part of the development of the delivery strategy.

Consulting with stakeholders and the community

From a community and landholder perspective there is likely to be a range of opinions and varying degrees of acceptance of the proposal presented. Effective engagement with stakeholders and the broader community will be key to the successful implementation of the project and managing the risk of project delays and cost overruns.

The consultation process will commence early, immediately following the additional modelling and clarification of the project scope. Consultation activities will be tailored to suit the intended audience, noting that these will range from those directly affected by the works to those with an interest in the proposal and from local and state government agencies to general members of the public. The level of support and eagerness to see the proposal implemented will vary due to factors such as reduced flooding, residual flooding (flooding not solved by the Northern Floodway) and impacts to property.

A range of stakeholders will be consulted at various stages throughout the project. These will include:

- Constituent Councils, in particular Adelaide Plains Council and the City of Playford, where the works are located.
- State and federal government agencies, as required to gain approvals
- Emergency services agencies responsible for flood warning and response
- Property owners directly affected by the works
- Property owners currently affected by flooding (but not by the works)
- Wider community / ratepayers
- Commercial developers with an interest in the works
- Other special interest groups that may be identified as part of the development of the consultation strategy.

The consultation strategy to be developed for the project will identify the specific consultation and engagement methods to be employed for each target audience. Owners of land on which construction works are likely to be proposed are a distinct group of the community who deserve special consultation attention.

Next Steps

The GRFMA are committed to progressing the Northern Floodway project development, as a matter of priority. In particular, there is a strong desire to commence works on vegetation and silt removal within the river channel, combined with immediate levee repairs and a strategic revegetation program within the next 12-18months.

To facilitate the project's progression, the following immediate next steps are required, subject to commitment of funding:

- Confirmation of the project objectives
- Confirmation of the project scope, including vegetation assessments, assessment of existing levee condition and ground truthing of proposed infrastructure alignments
- Further modelling of additional flood scenarios, including an estimate of future damages avoided to inform a benefit cost assessment
- Early consultation with key stakeholders and the wider community via information release
- Review of project cost estimates
- Appointment of a Project Manager

Following this work and commitment to funding the immediate works, the necessary site investigations and approvals can be obtained to prepare concept designs of the immediate river condition and levee works, to enable tendering of the works.

An immediate budget commitment in the order of $165,000 for the scoping stage and $120,000-$150,000 for the first 12-month of Project Management support is required.

Future costs associated with developing the delivery strategy, site investigations, preliminary and detailed designs has been outlined elsewhere.

Part 2 Supporting Document

1 The Gawler River Floodplain Management Authority

The Gawler River catchment has historically experienced significant flooding, both within the Gawler Township and areas downstream. Flooding has occurred with reasonable regularity, on average every 10 years dating back to the earliest records in the mid-1850's.

In recognition of this, the Gawler River Floodplain Management Authority (GRFMA) was formed in 2002 as a Regional Subsidiary under Section 43 and Schedule 2 of the Local Government Act 1999, principally to manage the implementation of a strategy to mitigate flooding. It's purpose is to:

- co-ordinate the construction, operation and maintenance of flood mitigation infrastructure in the Gawler River area ('the Floodplain')
- raise finance for the purpose of developing, managing and operating and maintaining flood mitigation works within the Floodplain
- provide a forum for the discussion and consideration of topics relating to the Constituent Councils' obligations and responsibilities in relation to management of flood mitigation within the Floodplain
- enter into agreements with Constituent Councils for the purpose of managing and developing the Floodplain.

Six constituent Councils form the Regional Subsidiary, including Adelaide Hills Council, Adelaide Plains Council, the Barossa Council, Light Regional Council, Town of Gawler and the City of Playford. The Authority is governed by a Board.

The GRFMA Charter sets down the powers, functions, safeguards and accountabilities and a framework for the financial commitments of the GRFMA and each Constituent Council. The Charter provides for one independent person to be appointed as Chair of the Board, along with two representatives from each constituent Council, being the Chief Executive Officer (or delegate) plus one elected member. Each Council can also appoint a deputy board member. The GRFMA employs an Executive Officer to manage the business of the Authority and coordinate the activities undertaken on behalf of the GRFMA.

A Technical Assessment Panel has been appointed to support the decision making process of the Board, with delegated powers to provide advice and manage the technical aspects of the design, assessment and construction of the various parts of the Scheme. The assessment panel comprises representatives from Councils, DPTI, SA Water and DEWNR, along with the Chair of the Board and the Executive Officer.

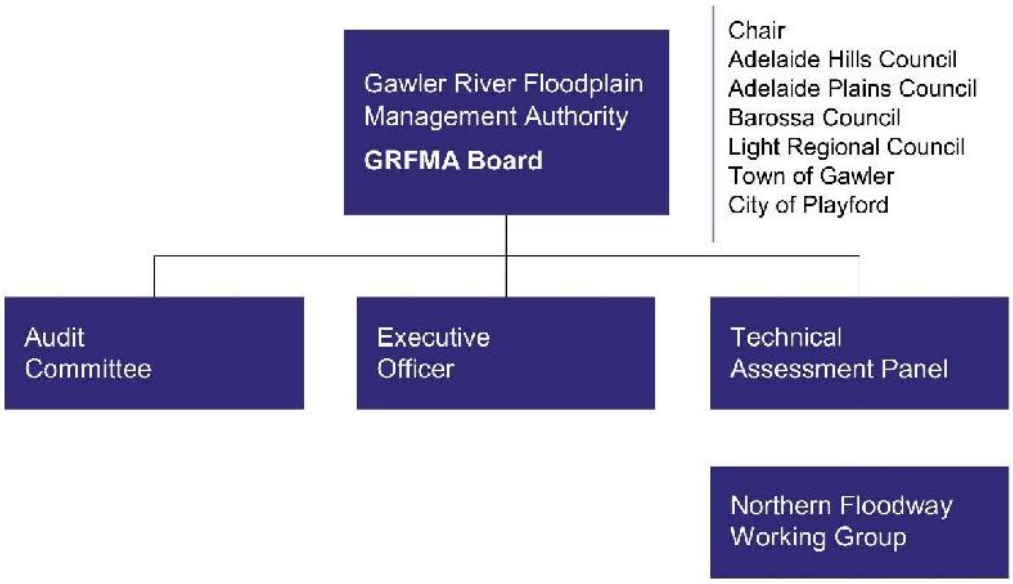


Figure 1.1 Existing Gawler River Flood Management Authority structure

Three significant flood events have occurred in the recent past, including 1992 (three separate floods), 2005 and 2016. Following the 2005 flood event, funding was approved to progress the works described in the GRFMA 2003 business plan, which included:

- The construction of a flood control dam on the North Para River near Turretfield.
- The modification the South Para Reservoir dam wall and spillway to provide 100-year flood control storage on top of full reservoir storage.
- The formalisation of controlled flow paths for floodwaters along the lower reaches of the Gawler River.

Significant works have been completed to date, including the flood mitigation dam on the North Para River (Bruce Eastick North Para Flood Mitigation Dam, completed in 2007) and alterations to the South Para Reservoir spillway (completed in 2012).

More recently, the 2017-2020 Business Plan identified the following priorities:

- Commissioning of a 'fatal flaw screening assessment' for the potential raising of the Bruce Eastick North Para Flood Mitigation Dam by up to 10 metres to provide additional flood protection for a 100-year Average Recurrence Interval (ARI) event to the township of Gawler and further downstream.
- Completion of a review of the 2016 flood event, including recommendations for addressing flooding within the lower reaches of the Gawler River.

Both of these studies were completed in 2017.

The Gawler River 2016 Flood Review report provides the following recommendations for works to be undertaken and provides first order indicative costs of $27 million:

- proposed Gawler River Northern Floodway
- upgrade and maintenance of the levee system
- management of silt and pest vegetation.

The GRFMA resolved to progress the report recommendations in 2017. Additionally, the GRFMA has resolved not to facilitate any further consideration of raising the height of the existing Bruce

Eastick North Para Flood Mitigation Dam until initiatives recommended in the Gawler River 2016 Flood Review are implemented and outcomes considered.

This document forms a key step in progressing the works recommended in the 2016 Flood Review Report, described throughout as the Northern Floodway.

1.1 Northern Floodway funding model

The GRFMA is committed to progressing the Northern Floodway Project as a priority, subject to The Federal and State Governments confirming a commitment to fund all capital costs, including further design and development costs, associated with the Northern Floodway Project. The GRFMA acknowledges that ongoing operational and maintenance costs associated with the Northern Floodway will be its responsibility.

The GRFMA has sought formal commitment from all constituent Councils on progressing the Northern Floodway Project on this funding principle.

2 The Gawler River

The Gawler River is a river system of the Northern Adelaide Plains, which flows in a generally westerly direction from the confluence of the North and South Para Rivers at Gawler to Gulf St Vincent at Port Gawler. It is a perched river system and thus receives little inflow from adjacent land as it makes its way towards its outfall. Key features of the river and it's catchment are shown on Figure 2.1.

Prior to development within the floodplain, flows would have frequently broken out of the river channel and inundated the broader floodplain, giving rise to the fertile soils within the region. Today, much of the river is flanked by levees. In some areas these are naturally formed (a natural feature of perched river systems), in other areas the levees are either man-made, or have been re-engineered in an attempt to prevent flooding of adjacent lands. In many cases, the levees are in poor condition and are prone to breaching and leakage.

The capacity of the river diminishes markedly from east to west, with a capacity of around 400 m^3/s near Gawler, to around 70 m^3/s at Port Wakefield Road and less than 10 m^3/s near Buckland Park lake, adjacent the coast. This diminishing capacity leads to flooding of the lower Gawler River[2] and it's floodplain on a relatively regular basis.

Given the very limited catchment downstream of Gawler, flooding within the Gawler River is mostly driven by flows from the upstream catchments of the South Para and North Para Rivers, which join immediately downstream of the town of Gawler. The upstream catchment is substantial, with an area in excess of 1000 km^2.

The catchments of the North and South Para River are largely rural in nature, other than the townships of the Barossa Valley and other smaller population centres.

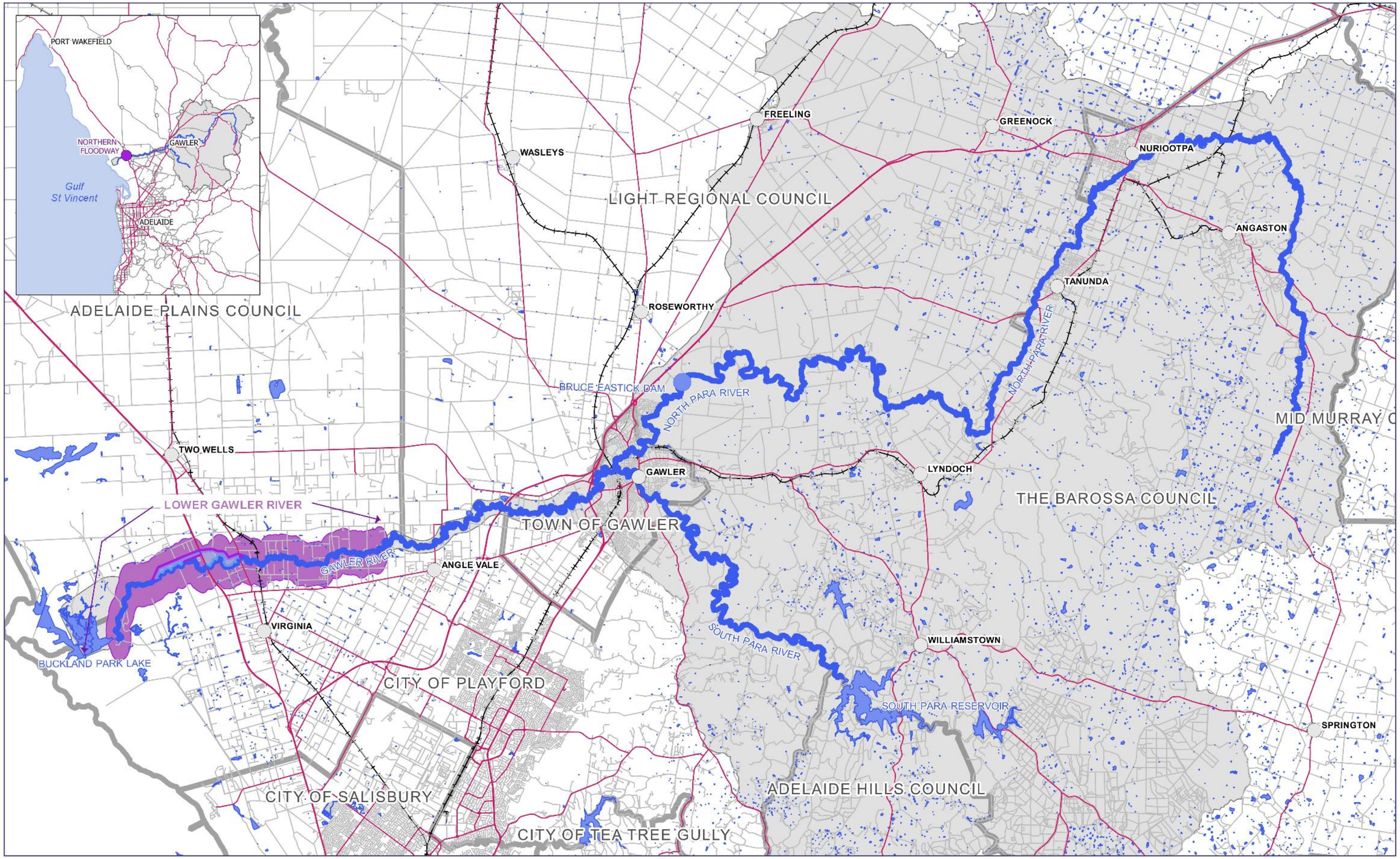
Within the lower Gawler River, on the northern side of the river is the Adelaide Plains Council, including the township of Two Wells and rural living area of Lewiston. Landuse within the flood prone area is characterised by a mixture of rural living, intensive animal husbandry and horticulture with anticipated population growth around Two Wells as part of the 30-year Growth Plan for Greater Adelaide.

South of the river, in the City of Playford, are the townships of Angle Vale and Virginia. The area comprises intense residential and commercial development in the townships, with broad acres predominantly horticulture and farming with associated hot houses, residential dwellings, outbuildings and other structures. Angle Vale and Virginia are also expanding substantially as part of the 30-year Growth Plan for Greater Adelaide.

In addition to residential, commercial and industrial expansion, the 30-year plan also maintains a strong commitment to growing the State's food industry and protecting areas of primary production significance, further reinforced by the recent Northern Food Bowl Protection Areas Development Plan Amendment.

Given the significance of the flood prone areas both north and south of the river for future residential, commercial, industrial and high value horticultural development, the potential cost of damages associated with major flooding events has increased over time, and is expected to continue to do so if no effective flood mitigation works are implemented.

[2] The lower Gawler River is generally regarded as being downstream of Boundary Road, or the boundary of Light Regional Council and Adelaide Plains Council.



Tonkin CONSULTING

0 1 2 3 4 5 km

N

Job Number:	20180193
Filename:	20180193GQ002
Revision:	REV B
Date:	5 June 2018
Drawn:	SEM

Data Acknowledgement:
Base data from DataSA

- Locality
- Flood mitigation dam
- Reservoir / waterbody
- Lower Gawler River
- Main River
- Watercourse
- Gawler River catchment
- Local Government boundary
- Major road
- Road
- Railway

GAWLER RIVER FLOODPLAIN MANAGEMENT AUTHORITY

NORTHERN FLOODWAY PROSPECTUS
GAWLER RIVER CATCHMENT LOCALITY PLAN
Figure 2.1

2.1 Flood history

The Gawler River has been subject to major flooding on average every 10 years over the past 160 years. Earliest accounts date back to the mid-1800s with reports of the North and South Para and Gawler Rivers becoming "*sweeping torrents*" and washing away several houses at Buchesfeld (west of Gawler township). Whilst the incidence of major flooding has declined since construction of the South Para reservoir (1958) and an increase in the number of farm dams in the North Para catchment, these have not prevented major floods in very wet years when multiple large rainfall events have occurred. In recent history, major events have occurred in 1992 (September, October, December), November 2005 and October 2016.

The largest of these events, in October 1992, was estimated at 290 m^3/s at Gawler, with an Average Recurrence Interval (ARI)[3] of around 35 years. An estimated 200 homes were damaged during this event (The Advertiser October 29, 2012).

Although no homes were damaged when the Gawler River broke its banks in November 2005, around $40 million worth of crops were lost along with significant damage to public infrastructure such as roads.

Most recently, the Gawler River catchment experienced significant rainfall between late September and early October 2016 with falls ranging typically between 100 to 140 mm in the upper North and South Para River catchments. Due to the timing of the storm event, and the wet build up, the falls coincided with high water levels in the South Para Reservoir resulting in reservoir spill, compounding flows downstream within the Gawler River.

This resulted in a major flood event in the lower reaches of the Gawler River, with an estimated ARI of 20 years.

Although no homes were flooded, approximately 250 private properties along with local and state government infrastructure were severely affected by resultant flooding. Extensive loss of horticultural production and a significant damages repair bill reported to be in the order of $50 million resulted from this event.

[3] The average recurrence interval (ARI) of a flood event is the number of years on average within which a given flood will be equalled or exceeded. For example, a 100-year ARI event may occur on average once in 100 years. Refer to Section 9 for further details.

Figure 2.2 Flooding adjacent Port Wakefield Road, Virginia – October 2016

The 2016 event was the first major flood since completion of the flood mitigation dam on the North Para River and works on the South Para reservoir to improve flood storage. The estimated peak flow at Gawler was in the order of 130 m^3/s, compared to around 270 m^3/s had the dam not been constructed.

2.2 Previous studies and investigations

Numerous studies have been undertaken since 1990 aimed at quantifying the extent of the flooding problem, mapping flood risk and assessing potential flood mitigation options for the Gawler River.

Following the flood event of 1992 a Flood Management Plan was prepared for the Gawler River, which outlined a number of options for flood mitigation, including works on the South Para River and a flood mitigation dam on the North Para River, upstream of Gawler (BC Tonkin and Associates 1994).

Following several revisions to the hydrology of the Gawler River catchment, including a major revision in 2007 (DTEI 2007) which predicted a significantly higher 100-year flood peak to that predicted by earlier work, a floodplain mapping study was undertaken which took advantage of more recent advances in aerial survey, hydraulic modelling and mapping techniques (AWE 2008). The study (updated in AWE 2015) produced flood inundation, depth and hazard maps for the Gawler River floodplain for the 50, 100 and 200-year Average Recurrence Interval events.

In 2016 a study of flood mitigation options was completed (AWE 2016) providing a long list and short list of potential structural flood mitigation options.

More recently, following the major flooding event of 2016, alternative flood mitigation options were investigated and form the basis of the current Northern Floodway proposal (AWE 2017).

The key recommendations of this report included:

Recommendation 1: "*River and levee maintenance should be the responsibility of a single authority that has the necessary resources and access rights to maintain the river in good condition from a flood conveyance as well as biodiversity perspective*."

Recommendation 2: "*River condition and levee maintenance repair work should be undertaken as a matter of high priority."*

Recommendation 3: "*The GRFMA proceed with developing concept designs for the establishment of a Northern Floodway, in addition to the construction of a new river levee system so that consultation with affected landholders can proceed.*"

Recommendations 2 and 3 are the subject of this prospectus document.

2.3 Quantifying flood risk and the economic cost of flooding

Historically, major overtopping of the banks of the Gawler River occurred for much of the river's length for events larger than a 10-year ARI. Significant flooding commences within the Gawler township from both the North and South Para Rivers (AWE 2016). For the 100 year ARI event, flooding within Gawler itself can be expected, but is largely contained within the river valley. Downstream of Gawler, major breakouts commence immediately downstream of the Northern Expressway.

The 2015/16 modelling of the 100-year ARI flood, depicted on Figure 2.3, indicates a series of major breakouts occur around Boundary Road, where a significant proportion of floodwaters spill to the north towards Lewiston and Two Wells. Further, smaller breakouts occur downstream of Boundary Road, including spill to the south which will impact the Virginia township and associated growth precinct. Floodwaters overtop the major A1 transport route, Port Wakefield Road, before flowing around the proposed Buckland Park development area to the sea.

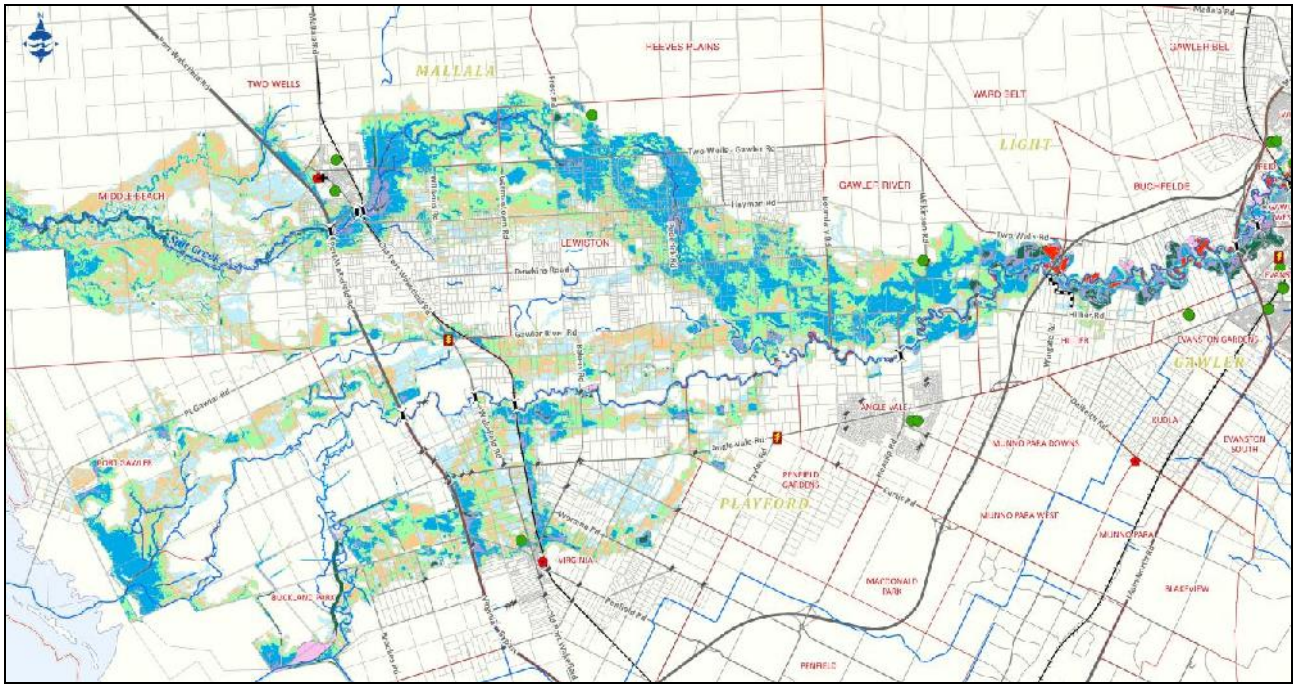


Figure 2.3 100 year ARI inundation (AWE 2015)

Flood hazard assessments undertaken in 2016 quantified the flood risk across the floodplain as low, medium, high or extreme flood risk. Hazard is the product of depth and flow velocity, and can be used to describe the direct risk to people presented by flooding. Figure 2.4 provides an indication of the number of flood affected residential properties classified according to flood risk.

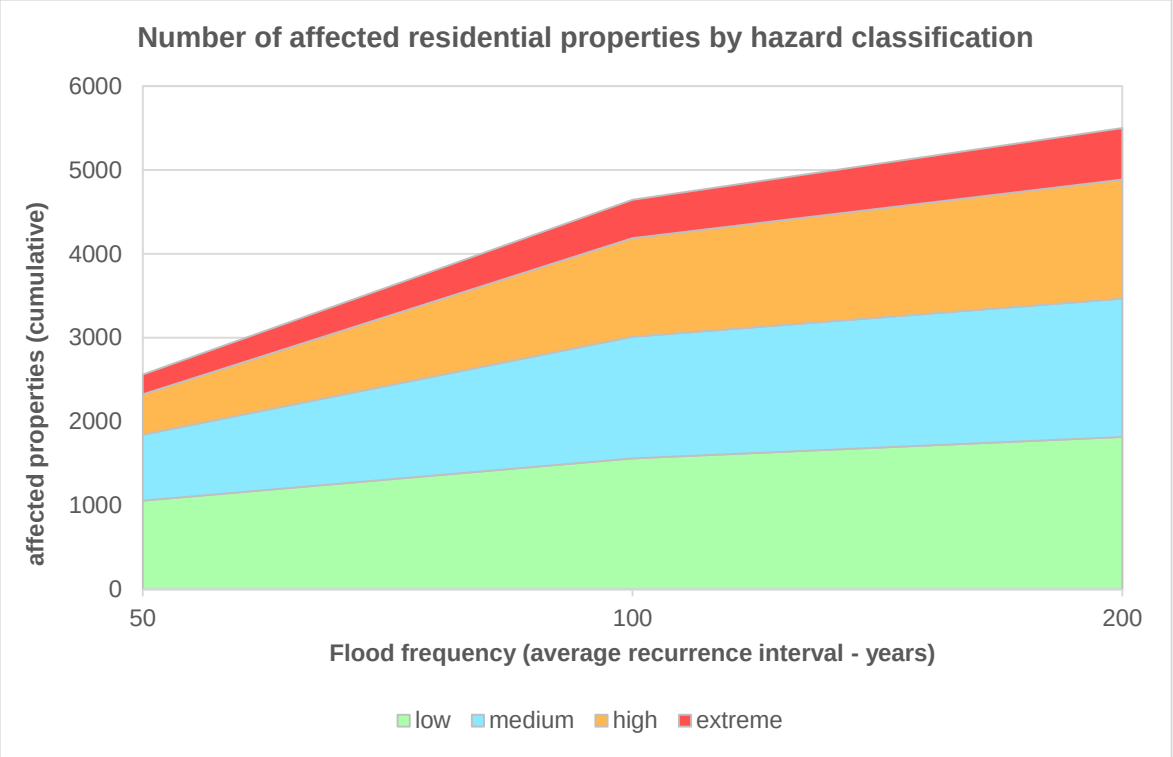


Figure 2.4 Affected residential areas by hazard classification (data from AWE 2015)

Much of the floodplain area is prime horticultural and agricultural land, which continues to expand and forms part of the Northern Food Bowl. The population centres of areas of Angle Vale, Two Wells and Virginia will also continue to grow under the 30-year growth plan for Adelaide, with growth in some areas, including Virginia, currently limited by flood risk.

Flood damage estimates for the existing floodplain condition were prepared in 2016, following construction of the Bruce Eastick North Para Flood Mitigation Dam, which has reduced the impacts of flood events less than the 50-year ARI event, particularly within the Gawler township. These estimates are summarised in Table 2.1.

Table 2.1 Estimated flood damages (AWE 2016)

Flood frequency (ARI)	Estimated damage
10 years	$15m
20 years	$24m
50 years	$102m
100 years	$182m
200 years	$212m
Probable maximum flood	$450m (assumed)

The average annual damage was calculated at $7.4m, with the present value damages at $109m.

The costs include direct tangible costs including damage to buildings and contents, public infrastructure, export crops and grazing land; and indirect tangible costs including emergency response, relief costs and grants, clean up and emergency accommodation. Intangible costs such as the value of lost business or social/emotional damage are not included, and therefore the true cost of floods is likely to be greater.

The damage assessment also provided an indication of the number of properties (allotments) affected by floods of various magnitudes as summarised in Figure 2.5. This includes those properties which experience over floor flooding only.

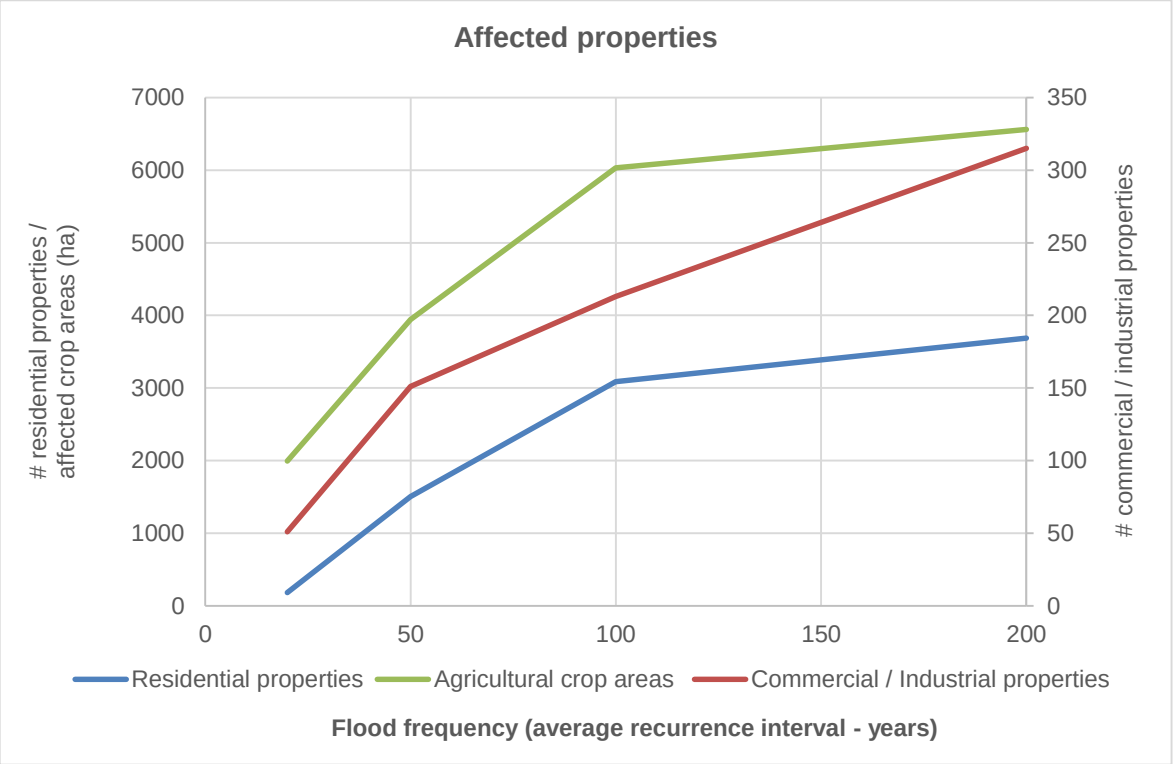


Figure 2.5 Estimated number of properties affected by over-floor flooding (data from AWE 2015)

These estimates are based on the existing catchment development state, and do not take into account potential damages associated with the expanding residential, commercial and industrial development associated with the 30-growth plan for Adelaide, nor expanding primary production, hoticultural and rural lands associated with the Northern Food Bowl. It also only values loss to export crops, and therefore including local crops increases the damage estimates.

2.4 Managing flood risk

Flood protection, or the management of flood risk within the Gawler River catchment cannot be achieved by any single infrastructure solution, principally due to the significantly diminishing capacity of the river channel heading west across the floodplain, and limits on the size of flood mitigation storage that can be constructed upstream.

Flood mitigation within the overall catchment is based upon a number of elements, some of which are part of the overall flood management plan for the Gawler River, and some which pre-date these plans or have been constructed privately. Works generally fall into the category of:

- Upstream, catchment scale flood mitigation, as part of the Gawler River Flood Mitigation Scheme Mark I (and potential future works):
  - North Para River flood mitigation works – Bruce Eastick North Para Flood Mitigation Dam
  - South Para River flood mitigation works – amendments to the reservoir spillway
- Localised flood mitigation
  - Gawler township – minor works in and around Gawler township
  - Existing lower Gawler River flood levees.

- Lower Gawler River flood mitigation works, as part of the Gawler River Flood Mitigation Scheme Mark II – currently under consideration as the Northern Floodway proposal.
- Non-structural flood management – including development controls and other measures such as flood forecasting and flood warning systems.

North Para flood mitigation works

The Bruce Eastick North Para Flood Mitigation Dam was constructed in 2007, providing detention storage on the North Para River. It currently provides significant detention capacity for events up to a 40-year ARI, but has limited effect on events of 50-year ARI magnitude and greater. The 2016 flood event demonstrated the effectiveness of the dam for a 20-year ARI event, reducing the flood peak at Gawler from an estimated 270 m^3/s (no dam) to 130 m^3/s (with dam). It is expected that serious flooding through Lewiston and further downstream towards Two Wells could have been expected without the dam.

An assessment by AWE (2016) indicated that raising the existing dam crest by around 10 m, and thereby increasing the dam's capacity, would significantly improve the flood protection within Gawler and some distance downstream in a 100-year ARI event.

A feasibility investigation has been undertaken (AECOM 2017) by the original dam designers, which found that there are no technical fatal flaws identified with raising the dam wall by 10 m, however there are a number of challenges to be addressed.

Whilst the dam will provide substantial flood protection to Gawler and for some distance downstream, it is not anticipated that the dam will provide 100-year ARI flood protection along the entire length of the river. Similarly, the northern floodway will not provide flood protection to upstream areas including Gawler and Two Wells.

Notwithstanding this, further investigations into the dam enlargement have been deferred, pending the outcome of the Northern Floodway project.

South Para flood mitigation works

The South Para Reservoir embankment and spillway was not designed originally for flood attenuation, but for water storage. One of the key recommendations of the 1994 flood management plan was to modify the embankment and spillway to provide active flood storage on top of the reservoir storage.

These works were completed in 2012, and provide 100-year flood storage for the South Para River within the reservoir. The 2016 event was the first major flood event since completion of the works. The works proved effective, with discharge from the reservoir less than would have occurred prior to the spillway works.

Gawler township

A significant length of levees exist within the Gawler township which have been constructed in a piecemeal fashion over time in an attempt to resolve localised flooding issues. The condition and effectiveness of these levees varies.

As part of the Northern Expressway construction, a localised levee system was constructed on the southern side of river, in the vicinity of Wingate Road, aimed at 'funnelling' floodwaters towards the main Gawler River crossing and thereby managing flooding impacts that may otherwise have been caused by the expressway embankment. A side spillway on the northern side of the river, flood bypass channel and second bridge opening also assists in managing floodwaters in the 100-year event at this location. Whilst a secondary consideration, the levee system has resulted in some localised reduction of flooding on the southern side of the river, upstream of the expressway.

Lower Gawler River

Much of the lower Gawler River is flanked by levees, either naturally formed or manmade/re-engineered to provide flood protection to floodplain properties. These levees are generally in a poor state of repair and are prone to breach and/or failure during significant events such as 1992, 2005 and 2016.

An inspection of the levees on the southern side of the river between Heaslip Road and Old Port Wakefield Road was attempted in 2016, following the flood event (Tonkin Consulting 2016). The state of disrepair was such that only around 45% of the roughly 12.5 km of levees were able to be traversed, due to a combination of dense vegetation, lack of access and general safety concerns.

Non-structural measures

Catchment-wide flood management within the Gawler River catchment will ultimately include a combination of structural and non-structural flood mitigation measures.

Non-structural measures such as a total flood warning system and more effective and consistent planning measures to manage new development are the most cost effective non-structural mitigation solutions.

Flood preparedness

Flood preparedness is a key non-structural means of reducing damages as a result of a flood. Flood preparedness involves making people aware of flood risk and how to best respond. There are four key elements to flood preparedness, or a *total flood warning system*:

- **flood awareness**: community awareness programs to enable landholders, residents and business owners to effectively respond to the onset of flooding
- **flood warning**: there is currently an effective flood monitoring system in place for the Gawler River catchment, managed by the Bureau of Meteorology (BOM). This consists of a series of automatic rain gauges and water level recorders, with data accessible in real time via the web. The BOM issue flood watch and flood warning services for the Gawler River catchment. Typically, 12 hours or more of warning can be provided for an impending flood.
- **flood response**: response of emergency services agencies, Councils and the general community during a flood which can impact on flood damages.
- **flood recovery**: assistance to flood-affected residents and businesses once the floodwaters have receded. The recovery phase post flood is critical to reducing social disruption and long lasting health issues associated with trauma.

Development / planning controls

Planning controls typically involve setting floor heights above the predicted flood level for the design flood. If applied correctly this measure will not substantially change the flood behaviour across the floodplain. Increased resilience can be achieved by incorporating a freeboard allowance above the design flood level; the higher the freeboard the greater the resilience.

Development and planning controls are implemented within each Council's development plan.

3 What is the Northern Floodway?

3.1 The proposal

The Northern Floodway concept, and associated works were investigated following the flooding of 2016. The Gawler River 2016 Flood Review Project Report (AWE 2017) made the following recommendations:

Recommendation 1: "*River and levee maintenance should be the responsibility of a single authority that has the necessary resources and access rights to maintain the river in good condition from a flood conveyance as well as biodiversity perspective*."

Recommendation 2: "*River condition and levee maintenance repair work should be undertaken as a matter of high priority."*

Recommendation 3: "*The GRFMA proceed with developing concept designs for the establishment of a Northern Floodway, in addition to the construction of a new river levee system so that consultation with affected landholders can proceed.*"

Recommendations 2 and 3 collectively form the 'Northern Floodway' proposal.

There are three primary elements forming part of the overall concept:

- Levee improvements (immediate and long term) and ongoing maintenance
- River channel works – including strategic sediment and vegetation removal and revegetation – and ongoing maintenance
- A new levee and Northern Floodway system downstream of Old Port Wakefield Road.

Recommendation 2 acknowledges that there are immediate issues that could be addressed to reinforce the levee system and reinstate channel capacity at known problem locations whilst the longer-term, more significant mitigation strategy is progressed. Whilst the channel works forming part of Recommendation 2 are not considered effective at mitigating large-event flooding in their own right, it is expected that these would provide an immediate benefit during smaller, more frequent events. Recommendation 2 and 3 are complementary, with the investigation and implementation work associated with Recommendation 2 forming the early stages of Recommendation 3.

Levee improvements

Existing levees are mostly in very poor condition due to either poor construction originally, or a lack of maintenance over time. Sections of levee banks have failed during historical floods, including 1992, 2005 and 2016.

Figure 3.1 Levee breach during 2016 flood event

In the short term, as part of Recommendation 2, the works will involve repairs to damaged levees (which in some areas may require complete replacement), and those sections of levees considered to be most vulnerable to failure during the next flood.

Figure 3.2 Example of levees in need of immediate repair

In the longer term, the majority of levees between Pederick Road and the Railway bridge (and potentially upstream of Pederick Road) will need complete replacement with appropriately engineered flood levees of sufficient height and cross section to fulfil their intended flood mitigation function, whilst also being accessible for safe long-term maintenance.

Ongoing maintenance will include managing weed growth, erosion and bank stability. It is recommended that these actions rest with a single authority with the responsibility and resources necessary.

Channel works

As part of Recommendation 2, the “no regrets” actions anticipated to provide some immediate benefit in terms of reducing flood risk include:

- Sensitive removal of pest and nuisance plants and revegetation as necessary with appropriate native plants species that will not unnecessarily impede flood flows.
- Sensitive removal of accumulated sediment around key structures such as the Railway bridge, Baker Road crossing, Old Port Wakefield Road Bridge and the Port Wakefield Road highway bridges that is impairing the capacity of these crossings to convey flow through them.

Whilst simple in nature, these works are somewhat complicated by the fact that the river is currently under private ownership with property boundaries (and the local government boundary) being near the centre of the river.

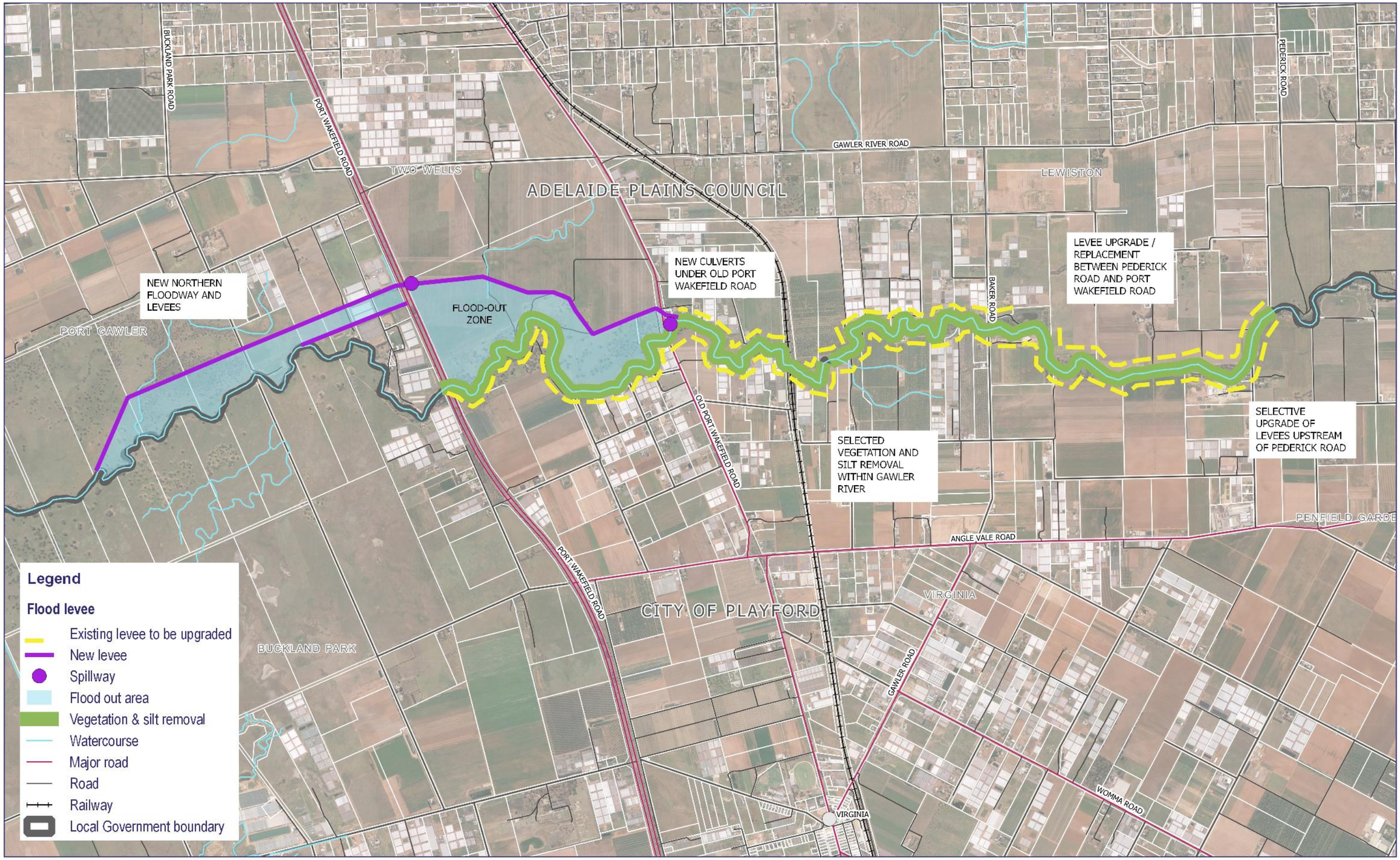
Consideration will also need to be given to the effect that weed and silt removal will have on short and long-term bed and stream bank stability. Successful revegetation with appropriate species will be key to long-term management of this potential issue.

New levee and northern floodway works

The new levee and floodway works referred to as the Northern Floodway is comprised of the following:

- Levee Bank improvements from Pederick Road (and potentially further upstream) to the Rail Bridge east of Old Port Wakefield Road
- A side spillway on the northern bank of the Gawler River upstream of Old Port Wakefield Road to divert water into the floodway
- New culverts under Old Port Wakefield Road to provide sufficient capacity for floodway flows. This includes raising a section of Old Port Wakefield Road to the north.
- A new levee system to contain flows within a designated flow path on the northern side of the river to Port Wakefield Road.
- A second spillway on the levee upstream of Port Wakefield Road to allow overtopping further to the north in large events, but preventing flooding north of Gawler River Road.
- A new levee system on the floodplain to the west of Old Port Wakefield Road to contain flows within a designated flow path north of the river, then directing flows back towards the main river channel towards the western extent of the Buckland Park development area.
- Flows will spread out through the floodplain from this point, or be guided through the Buckland Park residential development, should it be developed.

The proposed works are illustrated in Figure 3.3.



0 250 500 750 1000 m

N

Tonkin CONSULTING

Job Number: 20180193
Filename: 20180193GQ001
Revision: REV B
Date: 5 June 2018
Drawn: SEM

Data Acknowledgement:
Base data from DataSA
Aerial imagery from Google 2018

GAWLER RIVER FLOODPLAIN MANAGEMENT AUTHORITY

NORTHERN FLOODWAY PROSPECTUS
PROPOSED INDICATIVE SCOPE OF WORKS
Figure 3.3

3.2 Why is the floodway needed?

Due to the naturally diminishing capacity of the Gawler River channel as it flows west, it is not feasible to rely on any single flood mitigation solution to control flooding for the river's entire length during significant flood events.

Whilst flood control dams are very effective at reducing flood peaks, there is a limit to their size, and therefore the extent to which they can mitigate flows.

The existing Bruce Eastick North Para Flood Mitigation Dam on the North Para River is extremely effective at reducing flood peaks, at least for events up to and including a 20-year ARI event. This was demonstrated during the 2016 flood in which the estimated flood peak at Gawler was reduced from 270 m^3/s to 130 m^3/s. Despite this substantial reduction, the 2016 flood also demonstrated that even the reduced flood peak of a 20-year ARI event can cause substantial flooding in the lower reaches of the river.

The effect of increasing the capacity of the Bruce Eastick North Para Flood Mitigation Dam by raising the dam wall by 10 m was investigated in 2016 (AWE 2016). The modelling indicated that in a 100-year ARI event the flood peak could be reduced from 635 m^3/s to 170 m^3/s at Gawler. Whilst this has a substantial benefit to the Gawler Township and properties and townships on the northern side of the river, breakouts still occur on the southern side of the river near Virginia and horticultural areas will be subject to flooding, presumably in a similar manner to that which occurred in 2016. The peak discharge from the enlarged dam in a 20-year event would not change substantially, and therefore these works would not have prevented the flooding which occurred in 2016.

This indicates that even with a larger upstream flood mitigation dam, supplementary flood mitigation works are required in the lower reaches of the river to prevent flooding of property, closure of roads and potential damage to infrastructure.

The Northern floodway has been assessed as the preferred means of achieving the desired flood protection.

3.3 Are there any alternatives?

A number of possible flood mitigation solutions for the Gawler River have been investigated since the original Flood Management Plan completed in 1994.

In addition to those works already completed (South Para Reservoir works and North Para flood control dam), a summary of the options identified is provided below. Some have been examined in detail by way of modelling and costing, others were discounted early on the basis of expected triple bottom line implications.

Table 3.1 Flood mitigation alternatives explored over time

Option	Description
1994 Flood Management Plan (BC Tonkin & Associates)	
Parallel floodway between Gawler and Port Wakefield Road.	Construction of levees both sides of the river to create a 450 m wide floodway on the northern side of the river. Deemed to have high cost due to major earthworks and unacceptable environmental impacts.
Channel enlargement (to either 200 or 400 m^3/s)	Deemed to have high cost due to major earthworks and unacceptable environmental impacts.

Option	Description
Off-stream storage	Storage on northern side of river upstream of Heaslip Road with low flow discharge to Salt Creek. Would not achieve 100 year ARI standard, unless combined with a second option such as channel widening. Therefore, not considered feasible due to high costs.
2016 Mitigation Options investigation (AWE 2016).	
Channel modifications	Modelling was used to determine the effectiveness of removing dense vegetation from within the river channel. The effect on flood conveyance was found to be minimal. As part of the same exercise, consideration was given to increasing the channel capacity by widening the base and steepening banks. This option was not considered further due to anticipated costs and the environmental impacts.
Flood bypass	Two flood bypass options were identified: • Following the main breakout flowpath through to Salt Creek. • Following an alignment alongside the main river channel for the full length. This option is similar to that investigated in 1994. These options were not considered further due to the substantial earthworks required and the expected social and environmental impacts on properties.
Levees	Whilst strategic levees to protect higher density areas of residential and horticultural development were considered further (refer below), widespread levees along the entire length of the river were not considered further due to the upstream flooding impacts they can cause, risk of failure and flooding impacts caused outside the flood zone when overtopped.
Retarding basin downstream of Gawler	No considered a viable option due to the large land area required, high costs and high social and environmental disruption.
Strategic levees in the lower Gawler River floodplain to protect higher density residential and horticultural development (Gawler, Two Wells, Virginia)	A shortlisted option as part of the 2016 study. Involved three sets of strategic levees to protect areas of higher density development whilst minimising upstream or downstream impacts. The levees targeted Gawler, Two Wells and Virginia. Whilst protecting higher density areas, with a specific focus on residential development, the levees would do little to prevent flooding of agricultural, grazing and horticultural areas. This is a less costly, but less effective option to the Northern Floodway.
2016 Flood Review Report (AWE 2017)	
Channel widening and levee improvement works to contain peak flows within the main river channel between Gawler and Port Wakefield Road.	Investigated in detail by modelling. Similar to options identified previously. To provide 100 year ARI standard, solution involves widening the channel to 20 m between Baker Road and Old Port Wakefield Road, and to 30 m downstream of Old Port Wakefield Road. Also requires levee improvement works. Costs expected to be excessive (four times the Northern Floodway) with significant environmental and cultural impacts.

Option	Description
Desilting and vegetation removal within the river channel and construction of a new outlet channel from Buckland Park lake to the sea.	Similar to that identified in 2016. Involves deepening the river bed by 1 m over a 15 km length, clearing vegetation and constructing a new outlet channel downstream of Buckland Lake. This option was found (by modelling) to have limited effectiveness during large flood events.
Northern Floodway	Preferred option, as identified above.

The two options investigated in detail as part of the most recent work (AWE 2017) both provide a similar level of flood protection, improving flood protection to over 230 properties. The Northern Floodway option provides a similar degree of protection to the channel widening, but can be achieved at a much reduced cost and without the significant environmental, cultural heritage and social implications associated with channel widening.

It is acknowledged that the Northern Floodway is not the preferred option for all parties, however on the balance of the assessments undertaken it provides significant benefits whilst managing cost, environmental and social consequences.

3.4 What are the benefits?

To date the Northern Floodway has only been analysed in detail for the 2016 flood event, estimated to represent roughly a 20-year ARI event. Although not tested under larger flood events (50 or 100 years) it is assumed that the floodway will also perform well in a 50-year ARI event.

Future modelling is expected to confirm whether, with minor amendments, the floodway is capable of achieving a 100-year standard, and if so it is anticipated that this level of protection would be a significant selling point for securing community support (AWE 2017). It is acknowledged that no community consultation has been undertaken to date, and so there is no clear understanding of the community's expectations of flood immunity.

Damage calculations have not yet been undertaken to quantify the expected reduction in average annual flood damages or the post-mitigation present value of damages needed to calculate the cost benefit ratio. In non-monetary terms, purely on the basis of the modelling undertaken for the 2016 flood event, the following benefits are anticipated to result from the Northern Floodway implementation:

- Protection of 211 of the 248 properties estimated to be flooded in 2016. Reduced flooding in a further 10 properties. Similar protection is expected in the 50-year event.
- Substantially reduced flood damages through the protection of the high value horticultural lands around Virginia.
- No flooding of the existing Virginia Township or re-zoned residential / deferred urban areas within the Virginia Growth Precinct.
- No overtopping of Port Wakefield Road, maintaining the critical A1 transport route.
- Reduced flood hazard and impacts on local access and emergency evacuation routes, such as Angle Vale Road, through reduced flooding.
- Improved biodiversity within the Gawler River channel system as a result of selected vegetation removal, replanting with native species and a planned regular maintenance program.

The above benefits relate to the 2016 flood event, of estimated 20-year ARI magnitude. Further modelling will be required to quantify the benefits during other flood events and residual risks for larger events. It is noted that Port Wakefield Road also overtops further north, near Two Wells, during larger flood events.

The expected reduced extent of flooding for the 2016 event with the Northern Floodway constructed is illustrated in Figure 3.4. The areas expected to be flood free are shown in green.

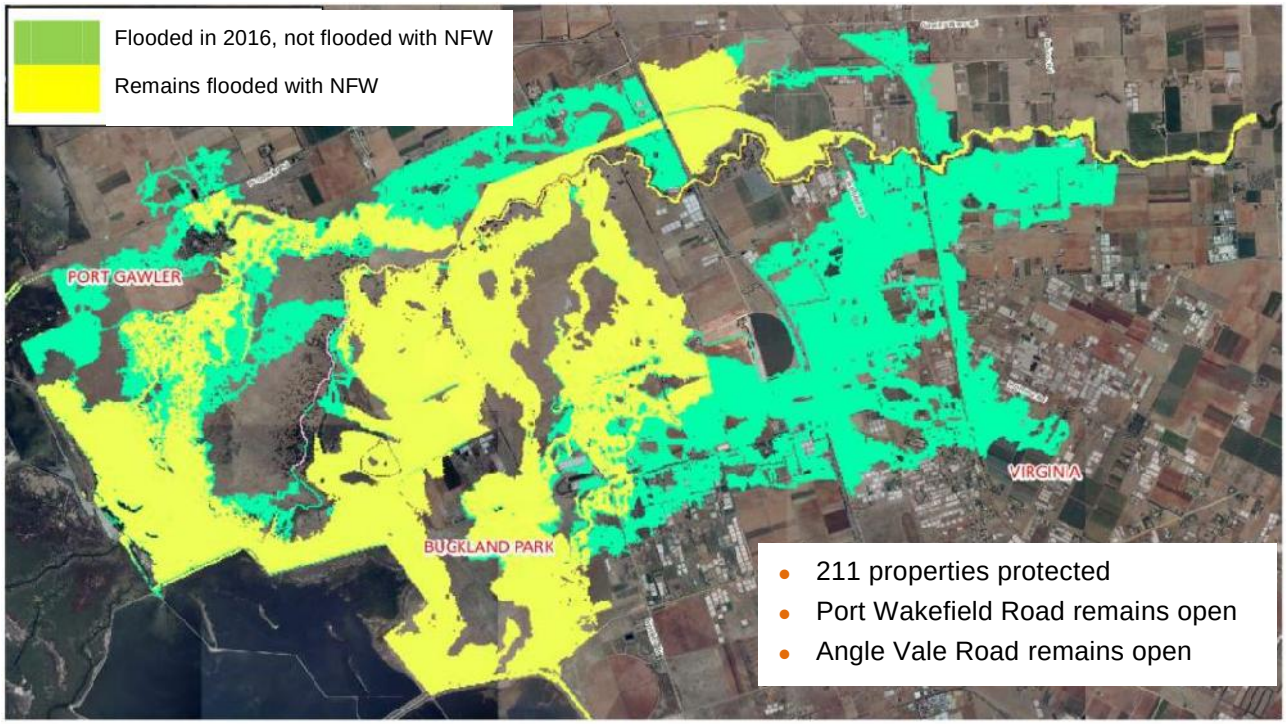


Figure 3.4 Expected reduced extent of flooding for 2016 event with floodway constructed (Note: this modelling assumes the Buckland Park development is not completed.

4 Progressing the project

4.1 How will the project progress?

To date a desktop only study has been completed to determine the feasibility and effectiveness of the Northern Floodway concept. This has relied upon the results of hydraulic modelling to inform the infrastructure requirements such as the need to upgrade existing levees, culverts and bridges, and the need for new levees and floodways. No site investigations have been undertaken to validate the project's feasibility, and to date stakeholder consultation has been limited to the Technical Assessment Panel and Northern Floodway Working Group.

The current estimated project cost of $27m has been estimated on the basis of the desktop investigation and modelling (AWE 2017).

In order to progress the implementation of the Northern Floodway works (Recommendations 2 and 3) a number of key investigations and further work will be undertaken.

This section outlines this work, describing why it is needed and briefly what is required. It is likely that the need for additional studies or investigations may be identified as the project progresses.

The works are structured into a number of key project 'stages', as depicted in Figure 4.1. The scope of works required for future stages will be reviewed throughout, or at least at the conclusion of each stage. Figure 4.1 also indicates some of the key feedback loops likely to occur as the project progresses. The significance of the feedback loops is that is recognises that at points during the project things may be discovered that require some revisiting of previous work.

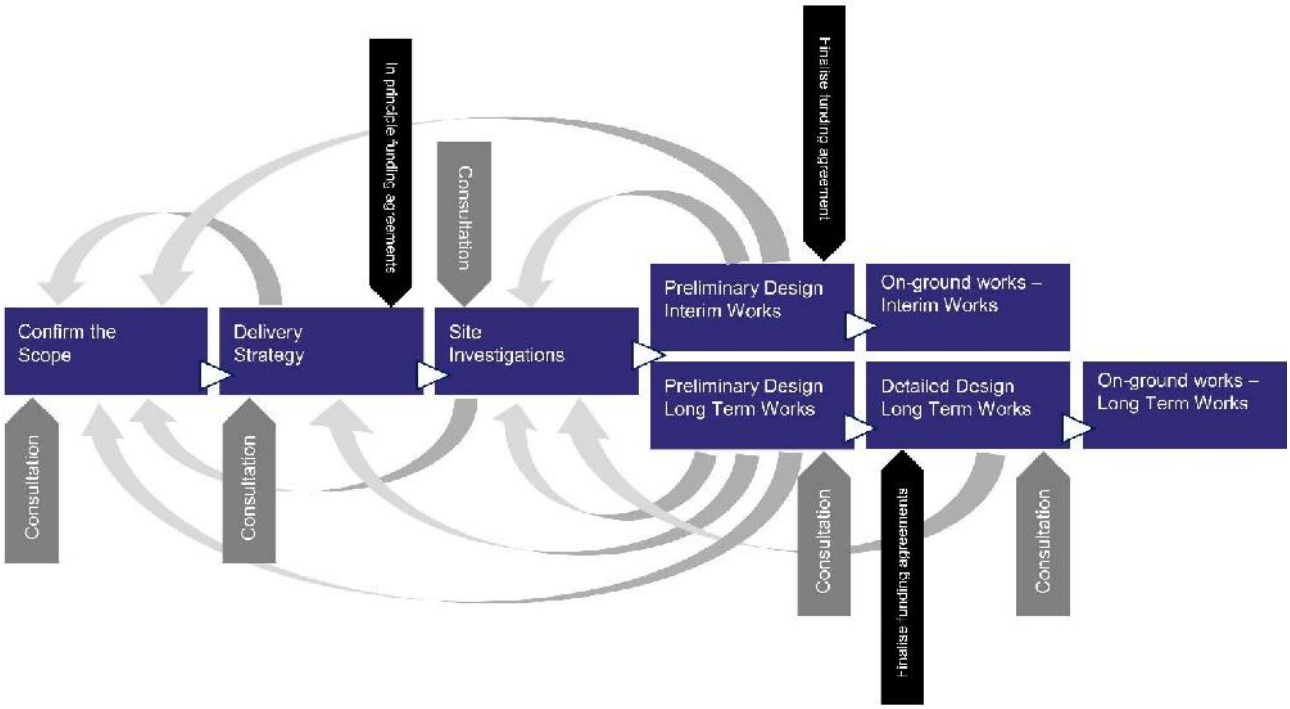


Figure 4.1 Key project development elements

It is proposed to progress the river condition and immediate repair levee works (Recommendation 2) as a matter or priority, subject to funding, establishment of landholder access agreements and approvals to undertake the works. It is anticipated that the necessary funding and approvals for the immediate works could be gained within a shorter timeframe than

the work required to enable commencement of on-ground works associated with the Northern Floodway and levee replacement.

Notwithstanding this, it is expected that the scope confirmation / ground truthing phase will need to be completed, prior to progressing further with either recommendation.

Extensive consultation will be undertaken throughout all stages of the project's development, along with regular review of the risk profile and review and updating of the project's estimated cost at key milestones.

4.2 Confirm the scope

A key first step in progressing both Recommendation 2 and 3 will be to confirm the scope of works necessary to achieve the desired level of flood mitigation. This will be achieved through a combination of additional modelling, site investigations and early engagement with stakeholders.

Tasks will include:

- **Clearly defining the project objectives** – what standard of protection is the project aiming to achieve, and how does this relate to the overall flood mitigation plan for the wider catchment/floodplain. This will include determining stakeholder/community expectations for flood protection.
- **Additional flood modelling**: modelling of additional design flood events from 20-200 years. It is suggested these be modelled with and without the enlarged Bruce Eastick North Para Flood Mitigation Dam. Based on the outcomes of the 100-year ARI modelling, an assessment can be made as to what standard of flood immunity can be achieved with the current concept or minor additional works.
- **Climate change assessment**: current climate change predictive models estimate that whilst the climate is expected to become warmer and drier, the intensity of rarer rainfall and flood events is likely to increase. The additional modelling will include a sensitivity analysis of altering rainfall intensity to determine the impact this has on peak flows and the effectiveness of the flood mitigation solutions.
- **Consider staging**: Consideration will be given as to how the works can be staged such that implementation of some works does not increase the flood risk in other areas until such time as the whole of the works are completed.
- **Damage estimates**: The results of the modelling can be used to estimate the reduction in flood damages (per event, average annual, present value) by completing the works (future flood damages avoided). This will form a key input to the estimation of the project's benefit-cost ratio.
- **Ground truthing / site walkovers**: this will include:
  - **Further inspection of existing levees** (where feasible) to determine those sections in need of immediate remedial works to improve function and reduce the risk of failure and/or overtopping in the short term.
  - **River condition survey**, including vegetation assessments and identification of areas of silt build up. This will inform the scope of works for vegetation removal and silt removal.
  - Preparation of a spatial data layer documenting river and levee condition.
  - **Ground truthing** of new levee and floodway proposals to refine and/or confirm the conceptual alignments and infrastructure upgrade requirements.
- **Redefine/confirm scope** on the basis of the outcomes of the additional modelling and ground truthing.
- **Early consultation** / presentation of information: The approach to consultation is discussed further in Section 5. Prior to consulting in earnest with stakeholders, including the wider

community, it is considered important to achieve the right balance between having sufficient information on the proposed works (e.g. footprint, benefits) whilst consulting early enough such that the community feels that they have an opportunity to provide feedback. The additional modelling and ground truthing is expected to provide sufficient information to enable commencement of the detailed engagement process.

- **Adjust / confirm preliminary cost estimates**: Existing high level capital cost estimates will be refined following confirmation of the scope. This will include splitting the cost estimate in accordance with the proposed staging, in particular costs associated with the river condition works, levee improvements and Northern Floodway works.
- **Determine first order cost–benefit**: based on the outcomes of the additional modelling, damage estimates and revised cost estimates.

4.3 Delivery strategy

A clearly defined delivery strategy for such a complex project is a must to manage risks, capitalise on opportunities, keep the project on track from a time and budget perspective, and ensure that the support of stakeholders and the broader community is firstly gained, and then maintained over the long term.

Governance and project management framework

The GRFMA is currently undertaking a review of its Charter and Governance framework. This review will consider the cost sharing arrangements for the GRFMA operations and confirm the representation, roles and responsibilities of the various groups / panels.

A separate consultation process with Constituent Councils, outside the annual budget process, will be undertaken, as appropriate, by the GRFMA on the solution designs, costings and funding mechanisms required by Local, State and Federal Governments and other funding partners. Councils and the GRFMA will then subsequently agree the most appropriate process to recognise and achieve required contributions.

In order to manage the implementation of the Northern Floodway works, it is intended that a Project Management Group be established to direct the program of works, with a Project Manager appointed to facilitate implementation.

The draft proposed structure is shown in Figure 4.2.

Figure 4.2 Draft proposed GRFMA structure

Ownership and land tenure

A critical aspect of progressing the project will be addressing land tenure considerations to enable the proposed works to be completed/constructed, and to enable the river and levees to be maintained long term in accordance with the endorsed recommendation of the 2016 Flood Review report.

In accordance with Recommendation 1 of the 2016 Flood Review project report "*River and levee maintenance should be the responsibility of a single authority that has the necessary resources and access rights to maintain the river in good condition from a flood conveyance as well as biodiversity perspective*."

The works are expected to be located entirely within the Adelaide Plains Council and City of Playford local government areas. The local government boundary is approximately down the centre line of the river. Given that the works are split between two local government entities, it is proposed that the ownership and future management of the river and levees will rest with the GRFMA.

With the river currently under private ownership, a change to the land ownership and/or tenure will be required to afford the GRFMA these rights.

Options are likely to include:

- outright purchase and freehold tenure of the main river channel and land required for flood mitigation works ('subject land') with potential lease back options
- establishment of an easement over the subject land
- establishment of land management agreements over the subject land
- a combination of the above.

Outright purchase is likely to be the most costly option, but will afford the GRFMA the greatest control over the land long term. Conversely, establishment of a land management agreement whilst less costly, may not achieve the rights required by the GRFMA for long term management of the river and any associated assets.

Under the GRFMA's Charter, the Authority does have the power to compulsorily acquire land in accordance with the Land Acquisition Act 1969 for the purposes of flood mitigation. Whilst acquisition by negotiation is preferred over compulsory acquisition, it may be that right must be exercised in some cases.

The services of a land access, valuation and property consultant will be sought to examine options and provide recommendations for land access and acquisition. This will include assessment of affected properties (based on the expected footprint), extensive consultation and negotiation with affected landholders, land valuation and an estimation of the costs of acquisition or otherwise.

Planning requirements and approvals

Planning and approval requirements will be determined early in the project to minimise the risk of delays to the project associated within gaining approvals.

It is unlikely that the immediate works will require approval under the *Development Act 1993*, assuming no regulated or significant trees will be removed. Approval is likely to be required under the *Natural Resources Management Act 2004*, with clearance of native vegetation approved under the *Native Vegetation Act 1991*.

The construction of the levee banks and spillway (long term works) is likely to require planning approval under the Development Act.

Given the development straddles local government zone boundaries, an option involves requesting the Planning Minister to have the application assessed by the State Commission Assessment Panel (SCAP). Alternatively, as the proposed development:

- Is not listed within Schedule 10 (Decisions by the Development Assessment Commission (now SCAP)) of the Development Regulations
- Is not captured by Section 49 (Crown development and public infrastructure) of the Development Act

each Council can assess (grant Development Plan Consent) the component of the proposed development that is relevant to its area.

The approvals pathway, and full list of approvals required will be determined as part of a planning study to be completed in the early stages of the project.

Existing zoning

A 50 m Conservation zone within Adelaide Plains Council exists on the northern side of the river (from river centre line), along with a 100 m Metropolitan Open Space System (MOSS) zone within the City of Playford on the southern side of the river (from the river centre line). Outside of the conservation zones, the northern floodway will be constructed within land zoned Primary Production within Adelaide Plains Council.

In each of these zones, land division is allowed for the purposes of flood mitigation works.

Procurement options

As part of the project planning and determination of the delivery framework, procurement options for the on-ground delivery of works will be considered.

Options include:

- Traditional design, tender, construct
- Design and Construct
- Early Contractor Involvement

Different packages of work may be delivered via different procurement models, for example detailed design of immediate works may not be required. The works may be better procured via a design and construct contract, working to a defined scope of works and performance/technical specification. This depends on the potential for innovative approaches in method to improve project value vs. potential additional costs associated with the transferral of risk.

Regardless of the procurement approach adopted for the Northern Floodway works, given the challenges associated with some elements of the work (for example, levee replacement) there would be benefit to seeking input from a construction contractor to address constructability issues and how these might influence the design or project costs. This will be subject to effective management of any potential probity issues.

A part of the procurement investigation, consideration will be given to staging based on priority areas, access limitations, any legal issues associated with land purchase or access and budget availability. Availability of materials for levee construction within the region may also require consideration.

Risk planning and management

The success of such a significant project will be dependent upon effective management of project risks and opportunities. In the early stages of the project a risk planning workshop will be undertaken with a range of project stakeholders to identify key risks and opportunities, and how these will be managed to reduce the likelihood of risks jeopardising the project's success, along with how the design can capitalise on any opportunities.

A risk register will be prepared which will be maintained and updated throughout the project's lifecycle.

Key risks and opportunities are likely to include:

- **Stakeholder / community acceptance**: Extensive consultation will be essential to gain stakeholder and community support for the proposal. Failure to gain this support may jeopardise the project's success.
- **Funding**: The project cost is significant, and will require financial support from all tiers of government (local, state, federal). In particular, the cost apportionment and local government's capacity to fund is considered a key project risk, should the necessary support not be gained from state and federal governments.
- **Project Costs**: To date very high level project cost estimates have been prepared, based upon very limited design detail. As the design is developed to a greater level of detail, estimates will be updated to gain further confidence in the project costs. There is a risk that as further detail is added to the estimates, the cost of the project may increase, placing pressure on any funding commitments.
- **Constructability**: Full consideration of the scope of works required, safe construction methodologies and the availability of materials within the region may influence project cost and overall schedule.
- **Access:** Much of the river and Northern Floodway alignment is under private ownership. In order to progress the project, including immediate works and site investigations, access to private property will need to be negotiated.
- **Land acquisition**: As above. The success of the long-term solution will require some property acquisition for construction of the works and effective ongoing maintenance. Negotiating property acquisition represents a real risk to the project budget and schedule.
- **Scope creep**: It is possible that a range of challenges and complexities may arise as the designs progress. Scope creep will place pressure on the project budget, and if not effectively managed may result in the need to down-scope to reduce project costs, which may in turn reduce the effectiveness of the solution.
- **Funding for ongoing maintenance**: Long-term flood mitigation within the lower Gawler River will be dependent upon effective maintenance of the river channel and levee systems. This will require an ongoing, annual commitment by each of the GRFMA's constituent Councils to fund the necessary maintenance.
- **Level of flood protection**: Optioneering to improve the level of flood protection provided, without substantially increasing costs, should be explored.

Consultation strategy

As part of the project delivery strategy, a Consultation Strategy will be prepared by an independent consultant on behalf of the GRFMA. This document will outline the target audiences for consultation, the planned methods of engagement and consultation, and the key stages at which the consultation will occur.

Further details on the intended consultation is provided in Section 5.

Project execution plan

A Project Execution Plan will be developed for each major package of works, prior to commencing with the design activities. These documents will serve as a guiding document throughout the project's implementation.

4.4 Site investigations

A range of site investigations will be undertaken at the preliminary design stage to further confirm the scope of works and cost estimates. Whilst some investigations could be deferred to the detailed design phase, undertaking these investigations at preliminary design stage will assist in the management of key project risks such as scope and budget.

Levee clearance

As a first step some clearance of dense vegetation along the alignment of existing levee banks will be undertaken, subject to approval, to enable access for surveys and site investigations. Rather than complete clearance, it is anticipated that sufficient slashing be undertaken to enable safe traverse by foot for the purposes of top of levee survey, visual inspection of levee condition and cultural heritage surveys. By minimising clearance to just that necessary to facilitate access for surveys, any immediate impacts on levee stability due to loss of vegetation will be managed.

More substantial clearance of vegetation will be undertaken as part of the reconstruction works, and at this stage consideration will need to be given to the effect that this may have on bank stability.

Engineering survey

A two stage approach to survey will be implemented.

Existing Levee banks: initially, unless sufficient information can be gained from the current digital elevation model, survey of top of bank levels will be undertaken to determine any sections of levee bank most at risk overtopping in the short term. Ultimately, survey of the levee banks' existing cross section will be undertaken to inform the detailed design of the longer term remedial works.

Alignment of new levee banks: Full engineering and cadastral survey of new levee bank alignments to inform the design process. Subject to funding, this could be deferred to the preliminary design stage.

Geotechnical investigations

Geotechnical investigations will be required for the long-term levee replacement and construction of new levees to determine the suitability of local materials for reconstruction of levees. Any levees deemed to not require significant reconstruction may also need testing to ascertain their structural integrity.

Heritage surveys

A cultural heritage investigation will be undertaken to determine any constraints and/or areas requiring management during construction. The services of a cultural heritage consultant will be utilised to initially undertake a desktop assessment, followed by any site investigations that may be deemed necessary.

It is acknowledged that the Kaurna people have recently been officially recognised as the traditional owners of the Adelaide Plains (and beyond), with native title rights granted over parcels of land not under freehold between Myponga Beach in the south and Redhill in the north. This ruling is unlikely to affect the Northern Floodway works, however will be considered as part of the cultural heritage study.

Service locating and depthing

A services investigation to determine the location of public and private services will be undertaken to identify any significant service clashes that will require attention during the detailed design stage. Early identification of potential service clashes will enable timely engagement with service authorities and management of potential time and cost implications.

Dependent upon an initial Dial Before You Dig Search, physical service locating and depthing may be undertaken.

4.5 Preliminary design – immediate river condition and levee works

Immediate river condition works

The site walkovers, vegetation assessments and documentation of river condition are expected to largely inform the scope of works required for the interim works to improve river condition (vegetation and silt removal).

Preliminary design tasks will include:

- Documentation of the scope of works – extent of vegetation clearance and silt removal, extent of revegetation and species selection
- Consideration of the effect that weed and silt removal will have on short and long-term bed and stream bank stability and identification of management actions (revegetation or engineered solutions).
- Preparation of a technical specification
- Agreement on access requirements and provisions
- Documenting safety in design considerations
- Preparation of cost estimates, by Quantity Surveyor.

It is anticipated that this should provide sufficient information for the works to be procured via a 'design and construct' contract, with considerations such as temporary works to be determined by the contractor.

Immediate levee repair works

The scope of repair works required immediately to reduce the risk of failure during the next flood will be determined by physical inspection and top of levee survey. Repair works are likely to focus on significant low points, existing failures and locations where obvious defects indicate potential failure in the short term. The best chance of identifying high risk areas will be to undertake some clearance of vegetation on the levees to enable the whole length of levees (both sides) to be walked.

Similar to the river condition works, preliminary design will include:

- Documentation of the scope of works – extent of levee repairs required
- Preparation of a technical specification
- Agreement on access requirements and provisions
- Documenting safety in design considerations
- Preparation of cost estimates, by Quantity Surveyor.

It is anticipated that this should provide sufficient information for the works to also be procured via a 'design and construct' contract, with considerations such as temporary works and sourcing of material to be determined by the contractor.

4.6 Preliminary design Northern floodway – long term flood mitigation works

Preliminary design of the Northern Floodway, including new levee banks, will achieve notionally 70% design documentation, sufficient to more accurately determine the physical scope of works and footprint, and develop more accurate cost estimates.

The preliminary design will be based largely upon the outcomes of the scope confirmation, but reflective of the site investigations, feedback received through the consultation process and any other investigations undertaken as part of the development of the delivery strategy.

Documentation will include preliminary design drawings suitable for cost estimation by a Quantity Surveyor.

At preliminary design stage, any options for staging of the works, such as commencement of the new Northern Floodway works ahead of the existing levee upgrade works will be investigated in detail such that they can be considered in the context of project funding and management of any interim flooding implications.

4.7 Detailed design

Detailed design will include final design activities, any additional site investigations required and documentation of the works to enable tender and construction.

Final approvals will be gained throughout the detailed design phase.

At the completion of the detailed design, pre-tender cost estimates will be prepared by a Quantity Surveyor.

4.8 Procurement

Tender documentation, management of the tender process and tender review through to contract award will be required along with consideration of staging and risk allocation.

5 Early and ongoing consultation

From a community and landholder perspective there is likely to be a range of opinions and varying degrees of acceptance of the proposal presented.

Effective engagement with stakeholders and the broader community will be key to the successful implementation of the project and managing the risk of project delays and cost overruns.

The consultation process will commence early, immediately following the additional modelling and clarification of the project scope. Consultation activities will be tailored to suit the intended audience, noting that these will range from those directly affected by the works to those with an interest in the proposal and from government agencies to general members of the public. The level of support and eagerness to see the proposal implemented will vary due to factors such as reduced flooding, residual flooding (flooding not solved by the Northern Floodway) and impacts to property.

5.1 The stakeholders

A range of stakeholders will be consulted at various stages throughout the project. These will include:

- Constituent Councils, in particular Adelaide Plains Council and the City of Playford, where the works are located
- State and federal government agencies, as required to gain approvals
- Emergency services agencies responsible for flood warning and response
- Property owners directly affected by the works
- Property owners currently affected by flooding (but not by the works)
- Wider community / ratepayers
- Other special interest groups that may be identified as part of the development of the consultation strategy
- Commercial developers (e.g. Buckland Park).

The consultation strategy to be developed for the project will identify the specific consultation and engagement methods to be employed for each target audience.

5.2 Consultation activities undertaken to date

To date, no formal consultation with affected landholders or the broader community has been undertaken on the Northern Floodway concept specifically.

During completion of the 2016 Flood Review, a Working Group was established to assist the Technical Assessment Panel throughout the project (referred to as the Northern Floodways Working Group). The group comprised members of the Technical Assessment Panel plus seven landholders.

The terms of reference for the Working Group were as follows:

- Promote dialogue between landholders and the GRFMA's Technical Assessment Panel
- Contribute to the identification of flood mitigation options to be assessed for the lower Gawler River and presented to the GRFMA
- Provide feedback on the merit of the options assessed

- Identify a preferred option (or provide a short list of preferred options up to three) for presentation to the GRFMA
- Have its views and decisions noted and included within the study report.

Consultation with the Working Group throughout the development of options as part of the 2016 Flood Review indicated the following:

- It is anticipated that the Working Group would collective agree with Recommendation 2 (immediate works)
- It is anticipated that the majority of the Working Group would agree with Recommendation 3 (long term Northern Floodway works), but some landholder members of the group would not.

5.3 Planned consultation

The stakeholder and community consultation process will be developed and facilitated by an independent consultant on behalf of the GRFMA. Following the initial consultation process, focussed on providing a summary of the project, including how and when people will be able to provide feedback, a consultation strategy will be developed for roll-out during the project development and implementation stages.

Broadly, the consultation process will aim to:

- Provide information to stakeholders and the broader community on the Northern Floodway proposal, including:
  - Flooding risk within the lower Gawler River, and why is action needed
  - Options identified previously and why the Northern Floodway is the preferred option
  - What the proposal is
  - How can interested parties provide feedback on the proposal
- Seek feedback on the proposal from key stakeholders and the broader community on:
  - Expectations for flood protection (e.g. level of protection)
  - Level of support for the Northern Floodway proposal
- Seek additional feedback from owners of properties directly affected by the works regarding their specific concerns and perceived opportunities
- Collate and summarise feedback for use during subsequent stages of the project.

The consultation process will likely entail:

- Preparation and distribution of information materials and feedback forms
- Briefings, meetings (both one-on-one and in group settings as appropriate) and open days
- Fact sheets and updates addressing key aspects of the proposal, and progress over time
- Maintenance of a project website.

The early stages of consultation, at the scope confirmation stage will focus on preparation and distribution of information, and seeking of initial feedback. As the project progresses, the nature of consultation will become more detailed and focussed, particularly in regards to landholders and stakeholders directly affected by the works.

6 Implementation schedule

6.1 Proposed staging

Following the flood event of 2016, there is a renewed urgency to progress works that will afford a greater level of flood protection to properties in the lower Gawler River floodplain.

Whilst the new Northern Floodway works and long-term levee upgrades is generally considered to be the major component of work associated with the overall proposal, the works to be undertaken as part of Recommendation 2 will provide some improved flood conveyance, at least during smaller events. It is therefore proposed to progress the river condition and immediate repair levee works as a matter or priority, subject to funding, establishment of landholder access agreements and approvals to undertake the works. It is anticipated that the necessary funding and approvals could be gained within a shorter timeframe than the body of work required to enable commencement of on-ground works associated with the Northern Floodway and levee replacement (Recommendation 3).

This is reflected in the scheduling diagram provided in Section 6.2.

Options to stage the implementation of the new Northern Floodway and long-term levee upgrades will need to be considered in further detail to ensure that any interim flood impacts can be adequately managed. It is generally recommended that works be constructed commencing at the downstream end of the system.

6.2 Project scheduling

A representation of the tasks to be undertaken in order to progress to on-ground works, is provided below. The graphic indicates that a number of tasks can be undertaken in parallel, and that it should be possible to commence immediate river and levee works well ahead of the more substantial Northern Floodway works.

The schedule does not show:

- Negotiating and securing funding
- Sourcing of materials
- Resolution of legal issues
- Iterations to the design process as a result of feedback, access issues, funding shortfalls and the like.

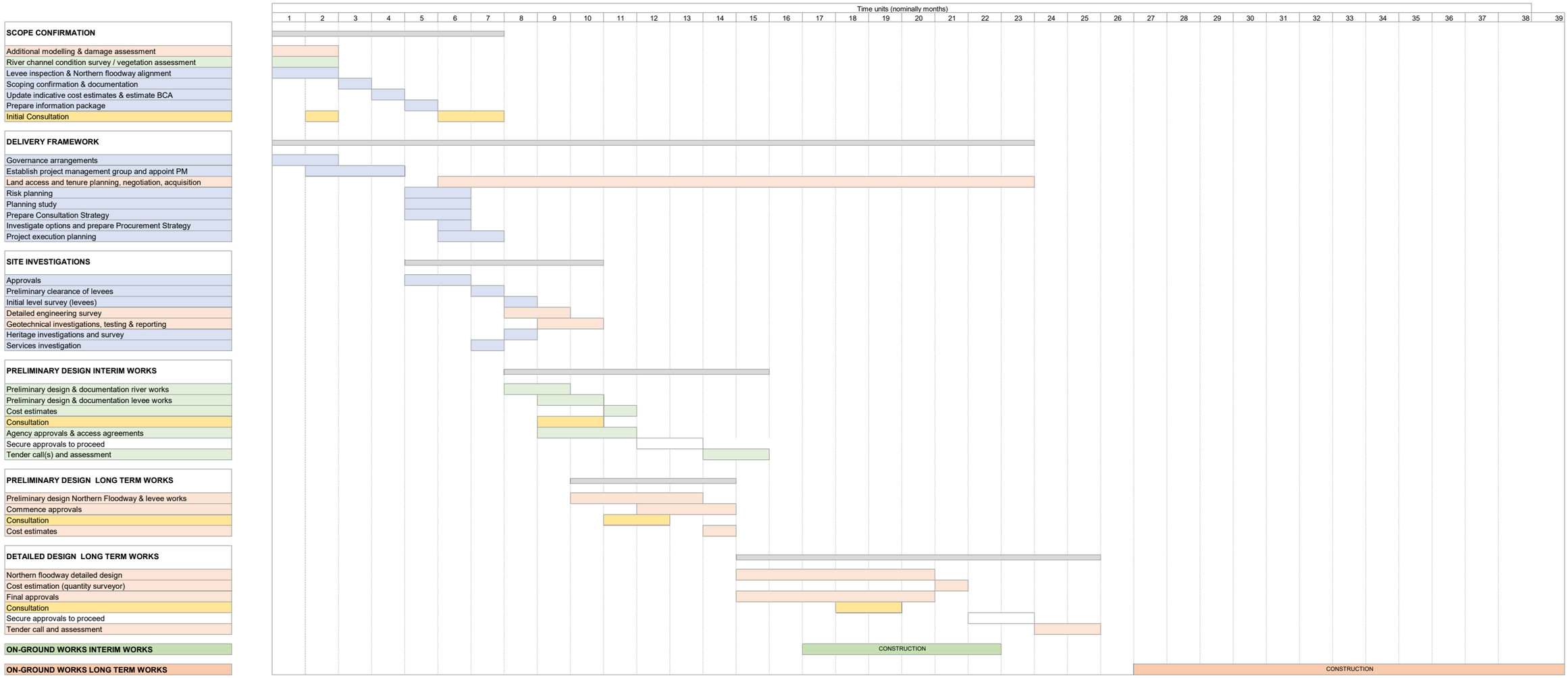


Figure 6.1 Draft Implementation Plan

7 Implementation costs

7.1 Project development – how much will this work cost?

Table 7.1 summarises the indicative (order of magnitude) costs for major elements of work (identified in this report) required to progress to on-ground works.

The scope of investigations and services required, along with associated costs, will be reviewed and updated as the project progresses.

Table 7.1 Indicative cost of major elements of work required to progress the project

Item	Indicative Cost
1. CONFIRM THE SCOPE	
Additional modelling & damage assessment	$30,000
River channel condition / vegetation assessment	$60,000*
Levee inspection	$15,000
Scoping confirmation & documentation	$10,000
Update indicative cost estimates & estimate BCA	$15,000
Prepare information package	$15,000
Initial Consultation	$20,000
Sub-total Confirm Scope	**$165,000**
2. DELIVERY FRAMEWORK	
Governance arrangements	Internal cost
Establish project management group and appoint Project Manager	Internal cost
Ongoing Project Management	$120,000-$150,000/year
Land access and tenure negotiations (property consultant)	$100,000
Risk planning	$10,000
Planning study	$15,000
Prepare Consultation Strategy	$10,000
Investigate options and prepare Procurement Strategy	$10,000
Project execution planning	By Project Manager
Sub-total Delivery Strategy	**$145,000 (excl. PM)**
3. SITE INVESTIGATIONS	
Preliminary clearance of levees	$150,000
Initial level survey (levees)	$15,000
Detailed engineering survey	$100,000
Geotechnical investigations	$100,000
Heritage investigations and survey	$20,000
Services investigation	$10,000
Sub-total Site Investigations	**$395,000**

Item	Indicative Cost
4. PRELIMINARY DESIGN IMMEDIATE WORKS	
Preliminary design & documentation river works	30,000
Preliminary design & documentation levee works	50,000
Cost estimates	10,000
Consultation	20,000
Tender call(s) and assessment	10,000
Sub-total Preliminary Design Immediate Works	**$120,000**
5. PRELIMINARY DESIGN LONG-TERM WORKS	
Preliminary design & documentation Northern Floodway & levee works	100,000
Consultation	80,000
Cost estimates	15,000
Sub-total Preliminary Design Long term works	**$195,000**
6. DETAILED DESIGN LONG TERM WORKS	
Northern floodway detailed design & documentation	200,000
Cost estimation (quantity surveyor)	15,000
Final approvals	15,000
Tender call and assessment	25,000
Sub-total Detailed Design long term works	**$255,000**
7. CONSTRUCTION SUPERINTENDENCE	**$100,000**

* *Cost will be dependent upon extent of vegetation assessments. Detailed assessment could be deferred to site investigations stage.*

7.2 Capital cost

Order of magnitude estimates for the cost to implement the Northern Floodway works, including the immediate river and levee remedial works, were prepared by AWE as part of the 2016 Flood Review project.

The estimate included allowance for:

- Concept Design
- Detailed Design
- Tender and administration
- Land acquisition
- Construction

A 30% contingency was allowed on the total, reflective of the feasibility level of work that has been undertaken to date.

The current estimate is summarised in Table 7.2.

Table 7.2 Northern Floodway and levee improvements indicative cost estimate

Element	Indicative cost *
Concept Design	$350,000
Detailed Design	$125,000**
Tender and administration	$100,000
Land acquisition	$9,170,000
Construction	$11,182,684
Sub-total	***$20,927,684***
Contingency	$6,278,305
Total	**$27,000,000**

* *From AWE (2017)*

** *'Detailed Design' costs differ from the cost provided in Table 7.1 ($125,000 vs. $255,000) due to additional inclusions in Table 7.1's design cost estimate.*

Excluding design (concept and detailed) and tender and administration costs, the capital construction cost, including land acquisition is $26,500,000, including a 30% contingency allowance.

The above costs are for the implementation of immediate works as well as long term works.

A key step in progressing the implementation of the works will be updating the capital cost estimates (including land acquisition) at a number of milestones, including:

- Scope confirmation stage
- Agreement on land tenure proposal (acquisition / compensation costs)
- Preliminary design
- Detailed design / pre-tender

At preliminary design stage, the services of a suitably qualified quantity surveyor will be engaged to prepare cost estimates for the various elements of the works. As discussed in Section 4.3 a property consultant will be engaged to assist with the estimation of costs associated with securing the required access to land for the purposes of implementing the on-ground works.

7.3 Operations and maintenance costs

Ongoing maintenance of the Gawler River channel, levees and floodway will be required to maintain the new system to fulfil its intended flood mitigation function. Ongoing maintenance will be the responsibility of the GRFMA.

A preliminary maintenance schedule and indicative costs are provided below.

Table 7.3 Indicative maintenance schedule and costings

Task	Frequency
River channel maintenance	
Inspection of river channel for weed growth, erosion, sediment accumulation and documentation of river condition	Annual
Weed control in priority areas	Annual

Task	Frequency
Additional weed removal	Annual or as budget permits
Additional revegetation	As required
Removal of debris and sediment accumulation – river bed	Biennial (2 yearly)
Removal of debris accumulation at bridge / culvert structures	As required (assume annual)
Levees	
Levee survey and record of settlement	Biannual (twice/year) for first two years, annually year 3-10 Frequency may be able to be reduced after year 10
Levee inspection for defects (rabbit holes, slumping, erosion, cracking)	Annual and following high flow events
Weed control (spraying / slashing)	Annual
Fence inspection and repair	Annual
Top up / repair of levees	As required
Floodway	
Floodway inspection	Annual
Weed control	Annual, dependent on land-use within floodway
Removal of debris accumulation at bridge / culvert structures	As required (assume annual)
Fence inspection and repair	Annual

Annual or scheduled maintenance is likely to come at significant cost to maintain the levees in good repair, and prevent the river returning to an overgrown state.

Maintenance costs, especially those related to levee maintenance, are likely to be driven by the extent of work undertaken during the construction phase. For example, if all levees are cleared and reconstructed with safe, trafficable crests, maintenance will be far easier and cheaper than maintaining levees with irregular cross sections not able to be safely accessed by vehicle. This is principally because it will enable maintenance tasks (level survey, inspections, weed spraying, repairs) to be undertaken by vehicle, rather than on foot.

Whilst costs have not yet been allocated against individual tasks, it is anticipated that the costs could be in the order of $300,000/year. Operations and maintenance costs will be estimated following confirmation of the project scope, and again following completion of the preliminary designs.

8 References

AECOM (2017) *North Para Dam Raise Feasibility Assessment Stage 3*. Prepared for the Gawler River Floodplain Management Authority, 13 April 2017.

Australian Water Environments (AWE, 2008) *Floodplain Mapping for the Gawler River. Technical Report, Volume 1.* Prepared for the Gawler River Floodplain Management Authority. 46896a R001 V7, 27 February 2008.

Australian Water Environments (AWE, 2015) *Gawler River Floodplain Mapping Report Final*. Prepared for the Gawler River Floodplain Management Authority. 14147 R001 V2.2, September 2015.

Australian Water Environments (AWE, 2016) *A Findings Report for the Gawler River Flood Mitigations Scheme. Mitigation Options Findings, Final.* Prepared for the Gawler River Floodplain Management Authority. 14147 R001 V8_1, March 18 2016.

Australian Water Environments (AWE, 2017) *Gawler River 2016 Flood Review, Project Report.* Prepared for the Gawler River Floodplain Management Authority. P17069 R001 V2_2, September 18 2017.

Australian Water Environments (AWE, 2017b) *Gawler River 2016 Flood Review, Hydrology Review.* Prepared for the Gawler River Floodplain Management Authority. P17069 R002 V1, September 21 2017.

BC Tonkin & Associates (1994) *Gawler River Flood Management Study. Flood Management Plan*. Prepared for the Gawler River Flood Management Working Party. Ref. No. 93/160, April 1994.

Department for Transport, Energy and Infrastructure (DTEI 2007) *Hydrological Study of the Gawler River Catchment*. March 2007.

Gawler River Floodplain Management Authority (GRFMA) *Business Plan 2017-2020*.

Gawler River Floodplain Management Authority (GRFMA) *Annual Report 2016-2017*.

Tonkin Consulting (2016) *Condition Assessment, Gawler River Levees*. Reference 20161358_L01. Prepared for the City of Playford.

9 Glossary of terms

Annual Exceedance Probability	Annual Exceedance Probability (AEP) refers to the probability of a flood event occurring in any year, expressed as a percentage. For example, a large flood which may be calculated to have a 1% chance to occur in any one year, is described as 1% AEP. A 1% AEP flood event is equivalent to a 100-year ARI event.
Average recurrence interval	Flood risk is often described in terms of Average Recurrence Interval (ARI). This is the number of years on average, within which a given flood will be equalled or exceeded. A 100-year ARI flood will be equalled or exceeded once in 100 years on average. It has a 1% probability of occurring in any given year. A 20-year ARI flood will be equalled or exceeded once in 20 years on average, and so on. Due to the random nature of floods, however, a 100-year flood need not occur in every 100 years and conversely, several floods which exceed the 100-year flood could occur within any one period of 100 years. The ARI of an event is *approximately* equivalent to the inverse of the AEP.
Average Annual Damage	Depending on its size (or severity), each flood will cause a different amount of damage to a floodprone area. Large floods will cause more damage than small floods. The average annual damage is the average damage per year that would occur in a particular area from flooding over a very long period of time. In many years there may be no damage, in some years there will be minor damage (caused by small, relatively frequent flood events) and in some years there will be major damage (caused by large, rare flood events). Average annual damage provides the basis for comparing the economic effectiveness of different management measures against floods of all sizes, i.e. their ability to reduce the AAD.
Catchment	The surface area of land that collects and drains water into a river or other waterway. Catchments can include both rural and urban areas
Flood control dam / flood mitigation dam	A man-made reservoir connected to a waterway that provides a temporary storage for floodwaters, potentially reducing or delaying the likelihood or magnitude of downstream flooding.
Flood damage	“Flood damage” is the tangible and intangible costs of flooding. Tangible costs are quantified in monetary terms (e.g. damage to goods and possessions, loss of income or services in the flood aftermath). Intangible damages represent the increased levels of physical, emotional and mental health problems suffered by flood affected people and attributed to a flooding episode. Intangible damages are difficult to quantify in monetary terms.
Flood hazard	Potential loss of life, injury and economic loss caused by future flood events. The degree of hazard varies with the severity of flooding and is affected by flood behaviour (extent, depth, velocity, duration and rate of rise of floodwaters), topography, population at risk and emergency management.

Floodplain	Land adjacent to a waterway, subject to occasional flooding (up to and including the probable maximum flood). Floodplains can be narrow, steep, wide and/or flat, and can extend several kilometres from the waterway.
Flood preparedness	**Flood preparedness** refers to measures taken to prepare for and reduce the effects of floods.
Flood warning	Advice on impending flooding provided so people can take action to minimise its negative impacts.
Present value damage	In relation to flood damage, is the sum of all future flood damages that can be expected over a fixed period (e.g. 30 years) expressed as a cost in today's value.

ADELAIDE HILLS COUNCIL
SPECIAL COUNCIL MEETING
Tuesday 19 June 2018
CONFIDENTIAL AGENDA BUSINESS ITEM

Item No:	**6.1**
Originating Officer:	**Karen Bennink, Community Wastewater Management Systems Technical Officer**
Responsible Director:	**Marc Salver, Director Strategy and Development**
Subject:	**Community Wastewater Management Systems Expression of Interest Outcomes**
For:	**Decision**

---

1. Community Wastewater Management Systems Expression of Interest Outcomes – Exclusion of the Public

Pursuant to section 90(2) of the *Local Government Act 1999* the Council orders that all members of the public, except:

- **CEO, Andrew Aitken**
- **Director Engineering & Assets, Peter Bice**
- **Director Strategy & Development, Marc Salver**
- **Director Corporate Services, Terry Crackett**
- **Director Community & Customer Service, David Waters**
- **Executive Manager Governance & Performance, Lachlan Miller**
- **Manager Waste, Health and Regulatory Services, John McArthur**
- **CWMS Technical Officer, Karen Bennink**
- **Minute Secretary, Pam Williams**

be excluded from attendance at the meeting for Agenda Item 6.1: (Community Wastewater Management Systems Expression of Interest Outcomes) in confidence.

The Council is satisfied that it is necessary that the public, with the exception of Council staff in attendance as specified above, be excluded to enable Council to consider the report at the meeting on the following grounds:

Section 90(3)(b) of the *Local Government Act 1999*, the information to be received, discussed or considered in relation to this Agenda Item is information the disclosure of which –

(i) could reasonably be expected to confer a commercial advantage on a person with whom the council is conducting, or proposing to conduct, business, or to prejudice the commercial position of the council; and
(ii) would, on balance, be contrary to the public interest;

Accordingly, on this basis the principle that meetings of the Council should be conducted in a place open to the public has been outweighed by the need to keep the information and discussion confidential.

Community Consultation Released 5 July 2018

Community consultation

To ensure Council considers the impact and interests of the community regarding the divestment of Council's CWMS, it is recommended that community consultation be undertaken with outcomes of the process informing future decision making relating to the divestment of Council's CWMS or otherwise. It may also inform elements of any subsequent request for tender process.

Broad consultation will be undertaken in accordance with Council's Community Consultation Policy. The consultation process will ensure all members of the community and other stakeholders are sufficiently informed and consulted on the process being undertaken. It will also provide the opportunity to engage on matters including Council's role in providing this service, the risk profile associated with providing this service, and the potential for future expansion of CWMS infrastructure to areas currently not serviced.

The following will be undertaken as part of the community engagement process:

- Drop in information session to be held at the Stirling and Woodside libraries
- Have your say – Portal for residents and ratepayers to provide feedback on Engagement HQ
- Public Notice advertisement

Considering the collaboration with other councils it is important that the timing of the community consultation process and the content of information provided to the community is consistent across the councils. To realise the potential benefits from economies of scale achieved through a collaborative approach it is important for Adelaide Hills Council to align its processes, including consultation, with the CoO as a lead participant this process.

At the time of preparing this report the CoO had not confirmed their final consultation timelines however their initial project plan had earmarked community engagement to occur late June 2017. Noting this potential, it is preferable for Adelaide Hills Council to be in a position to align with the CoO consultation. Through the JWG the councils are working together to ensure this occurs. Consultation would be undertaken prior to making a resolution to progress to a second stage request for tender or otherwise. Council Members would be informed of the consultation date, once known, prior to it occurring.

3. Community Wastewater Management Systems Expression of Interest Outcomes – Period of Confidentiality

Subject to the CEO, or his delegate, disclosing information or any document (in whole or in part) for the purpose of implementing Council's decision(s) in this matter in the performance of the duties and responsibilities of office, Council, having considered Agenda Item 6.1 in confidence under sections 90(2) and 90(3)(b) of the *Local Government Act 1999*, resolves that an order be made under the provisions of sections 91(7) and (9) of the *Local Government Act 1999* that the report, related attachments and the minutes of Council and the discussion and considerations of the subject matter be retained in confidence until 31 December 2019.

Pursuant to section 91(9)(c) of the *Local Government Act 1999*, Council delegates the power to revoke the confidentiality order either partially or in full to the Chief Executive Officer.