

WAGAIT SHIRE COUNCIL

AGENDA COUNCIL CHAMBERS

LOT 62, WAGAIT TOWER ROAD
7PM
Tuesday 21 July 2020



I hereby give notice that an Ordinary Meeting of Council will be held on:

Date: Tuesday, 21 July 2020
Time: 7.00pm

Location: Council Chambers, 142 Wagait Tower Road, Wagait Beach

Conditions: Current COVID-19 restrictions allow for only 10 persons in the Council Chamber. Council and secretariat are 7 people. Public are welcome to participate however are required to contact Council by 10am Tuesday 16 June 2020 if attending so that arrangements for alternative participation options such as joining via videoconferencing on a personal device or telephone can be made.

Renita Glencross
Chief Executive Officer

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1.0 PRESENT

Councillors:

- President Neil White
- Vice-President Tom Dyer
- Cr Graham Drake
- Cr Michael Vaughan
- Cr Peter Clee

Staff: Chief Executive Officer, Renita Glencross
Office Manager, Pamela Wanrooy

1.1 OPENING OF MEETING: - Chaired by

The President advises that the meeting will be audio taped for minute taking purposes only as authorised by the Chief Executive Officer.

1.2 APOLOGIES AND LEAVE OF ABSENCE:

**Resolution No. 2020/
That the apology of..... be accepted approved.
Moved:
Seconded:
Vote:**

2.0 DECLARATION OF INTERESTS

Nil

3.0 CONFIRMATION OF MINUTES

3.1 Confirmation of Minutes of Tuesday 16 June 2020 Council Meeting

**Resolution No. 2020/
That the Minutes of the Ordinary Meeting of Tuesday 16 June 2020 be confirmed by
Council as a true and correct record.
Moved:
Seconded:
Vote:**

3.1.1 Matters arising from 16 June 2020 Minutes

4.0 GUEST SPEAKERS – Kevin Hoult

Kevin Hoult has prepared a submission to address the degraded conditions of Wagait and Imaluk Beaces and management of Section 104, Restricted Use Area (RUA).

**Resolution No. 2020/
Council thanks Kevin Hoult for his submission addressing the conditions of Wagait and Imaluk Beach access points and management of the Restricted Use Area.
Moved:
Seconded:
Vote:**

5.0 INWARDS AND OUTWARDS CORRESPONDENCE – June 2020

Since Council’s 16 June 2020 Council meeting, the following correspondence has been received and sent.

Inwards Correspondence

Date	From	About	
15/06/2020	Integrated Valuation Services	Insurance Valuation reports for 142 Wagait Tower Road and 50 Forsyth Road, Wagait Beach	email
16/06/2020	NT Govt	Seniors Month Grant Agreement	email
16/06/2020	Barry Bamford	Email - resignation as member of Audit Committee	email
16/06/2020	Peter Clee	Letter - resignation as the Presidet effective 30th June 2020	email
17/06/2020	Emma Williams - Infrastructure Plan NTG	10 Year Infrastructure Plan 2020-2029 - updated required by 14 July 2020	
17/06/2020	LGANT	Acknowledgement of P Clee's services to Local Government	email
17/06/2020	Office of Information Commissioner of the Ombudsman	Freedom of Information - 2019/2020 Annual Statistical Return	email
18/06/2020	Cox Pen Brigade	Permit to burn the Green Waste - Cloppenburg Park	email
25/06/2020	LGANT	Letter to congratulate appointment of President Neil white	email
29/06/2020	Australian Bureau of Statistics	Quarterly Estimates 2019-2020 - Finance Statistics	email
1/07/2020	NT Government	Local Govt Schedule of Payments for the year ended 30 June 2020	email
1/07/2020	NT Government	Audit Confirmation Request 2019-20	email
1/07/2020	Fleetcare	Credit application for Lease of Toyota Hilux SR5	email
2/07/2020	Jaredine Llod Thompson (JLT)	GIO Workers Compensation - Statement of salaries, wagers and remuneration	email
3/07/2020	Valuations - DIPL	June Wagait Reconciliaion reports 2016 ad 2019	email
7/07/2020	Territory Families	Seniors Month 2020 - confirmation that fundig payment has been approved and processed.	email
7/07/2020	Compliance - Meeta Ramkumar	Variation request - Wagait Shire Council Dog Pound	email
10/07/2020	Pauline Williams - Compliance	Comments on Wagait Draft Council Plans	email
10/07/2020	Pauline Williams - Compliance	Compliance review Outstanding Issues	email
10/07/2020	LGANT	Media release - LGANT NT Election Advocacy.	email
13/07/2020	Office of Chief Minister - Kellie Hattman	Thank you letter - for helping to stop spread of COVID-19 and helping to make NT safe place	email
14/07/2020	True North - Claire Butler	Information on Core Lithium's proposed underground mine at BP33 site and update on approved grants Lithium project.	email
16/07/2020	Regional Development of Australia	EOL Management of Solar PV Panels	email
17/07/2020	Resident	Cultural Day at Wagait Community Centre	email

Outwards Correspondence

Date	To	About	
18.06.2020	LGANT	Peter Clee nomination form - Local Government Disciplinary Committee	email
18/06/2020	Sharon Fiedler - Sport & Active Recreation	Remota Sport Program Stimulus Package Round 2 - \$4,954.00	email
22/06/2020	Helmy Bakermans - FOI	details for the 2019/20 Freedom of Information annual statistical return	email
22/06/2020	Sureline Mercentile	5 x overdue rate payers for recovery of rates and costs.	email
1/07/2020	Anushka Dias, TDH Chartered Accountants	Signed copy of Audit Confirmation request	email
2/07/2020	Australian Bureau of Statistics	Local Government Finance Statistics	email
2/07/2020	Jardine Lloyd Thomson (JLT)	GIO Workers Compension - statement of salaries, wages and remunertion	email
3/07/2020	Fleetcare	Application for Fleetcare credit - New Toyota Hilux SR5	email
7/07/2020	Jardine Ilody Thompson	Signed WSH Insurance Renewal Report 2020-2021	email
8/07/2020	Freedom of Information	Signed declaration - FOI Annual Statistical Return 2019/20	email
8/07/2020	Jardine Lloyd Thomson (JLT)	Insurance Renewal Report 2020-2021	email
14/07/2020	LGANT	Nomination for Office Bearers - Peter Clee	email
16/07/2020	CBA	Identification form, application for Commbiz and Credit Card for President	mail
17/07/2020	Barry Bamford	Thank you letter - Audit Committee Member	email
17/07/2020	Resident	Cultural Day at Wagait Community Centre	email

Resolution No. 2020/

That Council receives and notes the Inwards and Outwards correspondence report for the period since 16 June 2020 Council meeting be accepted.

Moved:

Seconded:

Vote:

6.0 COUNCILLORS REPORTS

6.1 President's Report

Purpose: As part of my responsibility inform Council and the community of activities and information that is important.

Update:

Hello and welcome, this is my first report as the incoming President. I would like to take this opportunity to thank previous President Peter Clee for his outstanding effort over many years representing our community.

Council has been accumulating reserves to enable a major road maintenance program to be undertaken. This is estimated to cost approximately \$2.5 million, as advised by Peter last month. Unfortunately, we are still well short of the amount required for this project and it is not practical to do the maintenance in two stages. This shapes as a major issue for Council and we will be seeking Grant funding to supplement this project.

CEO Renita has sourced a remarkable document, commissioned some ten years ago, which takes an in-depth look at Climate Change specifically for the Wagait Beach locality. I urge Coucillors to examine this document in depth as it details issues that are even more relevant now than it was ten years ago.

We also look at a well-researched proposal from a local resident in relation to the four beach access points within the subdivision, with the aim of improving and beatifying these beach access points. This is a worthwhile proposal that we should submit to both the Department of Environment and Natural Resources and the Crown Land Office with a view to securing a commitment and funding to improve this popular area of Wagait Beach for both locals and visitors.

Meetings Attended:

Saturday 4 July	Half Yearly Community Consultation Meeting
Monday 6 July	Attended Council chambers to sign banking forms as incoming President and do a handover with former President
Friday 10 July	Weekly catch up with CEO at Council Chambers
Friday 17 July	Weekly catch up with CEO at Council Chambers

Resolution No. 2020/

That Council receives and notes President Neil White's report for the month of June 2020.

Moved:

Seconded:

Vote:

7.0 OFFICERS REPORTS

7.1 Chief Executive Officer's Report – June 2000

CEO Report June/July 2020	
Staff/HR	<ul style="list-style-type: none"> • Thank you to Casual team for flexibility during month of June • Change to 1 person per shift for COVID jetty wash (ceased 1 July) • Notification on shortage of Casual workforce in early to middle August • PowerWater works officer accreditation in process
Meetings	<ul style="list-style-type: none"> • Staff Toolbox x5 • President x5 – weekly catchups +2 additional for handover/induction • LGANT-CEO Forum via ZOOM; 21 Apr, 28 Apr, 12 May • LGANT Governance & HR RG via ZOOM; 20 May • LGANT Transport/Infrastructure RG via ZOOM ; 27 May • TOPROC Advocacy Forum NTG Candidates; 22 June • TOPROC Animal Management RG; 24 June hosted by WSC • Power Water; 25 June • Arafura Regional Road and Waste Committee; 26 June • NTLG-CEO via ZOOM; 26 June • Griffith University – Thriving Coasts CRC; 2 July, 8 July • Community Meeting; 4 July • Larrakia Development Corp/Keneally - Wagait Tip Remediation; 14 July • WSC Caretaker; 14 July • LGANT/DCM – My Darwin Platform; 14 July
Projects	<p><u>COVID-19 Council Compliance</u></p> <ul style="list-style-type: none"> • Jetty washes ceased 1 July • Council facilities have all been assessed and have COVID Operation Plans • Environmental Officers came to WSC offices 26 June to assess compliance <p><u>Emergency Management Committee</u></p> <ul style="list-style-type: none"> • No meetings held in June/July • ToR and meeting documents published to website • No response to Eol for Committee Chair, approaches to individuals non-productive <p><u>Welcome to Wagait Beach - Community Place-Making</u></p> <ul style="list-style-type: none"> • Proposed site agreed by Council in 21 April meeting • Consultation with DIPL for road verge usage permit in progress • Design competition winner announced in May/June newsletter - \$200 prize • Development of ToR and Eol for new Place-Making Committee underway <p><u>Dog Management Campaign and Implementation</u></p> <ul style="list-style-type: none"> • TOPROC aligned campaign TVC and banners underway • Consultation with Parap Vet and AMRRIC to develop community education and dog registration campaign and event on 29 August 2020 • Proposed Implementation Plan published for public comment • Variation request sent to DLGHCD, pending approval
Actions	<p><u>Administration and Reporting</u></p> <ul style="list-style-type: none"> • Preparation of Rates declarations for 2020-21 • Review of Budget 2020-21 and long-term financial plan 2020-2025 • Review of Business Plan 2020-21 • Liaison with DLGHCD regarding Special Purpose grant variations for Dog Pound

	<ul style="list-style-type: none"> • Liaison with DLGHCD regarding SCALE funding eligibility requirements Liaison with bookkeeper and auditors in preparation for annual reporting • Liaison with Police regarding speed on WTR • Liaison with CCVBB Warden, Crown Lands Office and DENR regarding fire-breaks around estate, particularly RUA access and costs recovery • Liaison with DENR Weeds Branch regarding planning for 2020-24 • Ongoing review and preparation of WSC Policy papers to be compliant with new Local Government Act 2019 and Regulations 2020 • Liaison with CouncilWise to progress implementation PropertyWise rates management system • Secretariat duties for TOPROC Animal Management RG meeting at WSC • Preparation and research for Dog Management By-law implementation and alignment of registration and campaign proposal • Preparation and planning for Community Meeting 4 July 2020 • Preparation and planning for Wagait Dog Day 29 August 2020 • Liaison with Wagait Runners and Walkers Group regarding support for Belyuen to Beach Fun Run • CEO Sleepout raised \$1000 for St Vincent de Paul programs <p><u>Public Communications</u></p> <ul style="list-style-type: none"> • Council e-newsletter (July) published • Draft Shire and Budgets published for comment 19/06/2020 • Community Consultation Notice of event • Dog Management Implementation Plan published for comment <p><u>Repairs and Maintenance</u></p> <ul style="list-style-type: none"> • CEO vehicle key barrel replaced (warranty)
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Work/Occupational Health & Safety Report May/June 2020	
Meetings	5 x Weekly WHS Toolbox meetings 2 x WHS consultant meetings
Incidents	One incident reported during the month: <ul style="list-style-type: none"> • 07/06/2020 – Sport/Rec phone dropped and smashed screed, replaced.
Actions	Prevention, Mitigation and Awareness: <ul style="list-style-type: none"> • Request Works Supervisor to complete JSA for use of knife during Jetty role, including safe handling and storage • Review of correct footwear for Jetty Wash • Continue work on labels of decanted substances in workshop • Discussion safety signage for whole of organisation daily work and special events Actions Outstanding at 17/7/2020: <ul style="list-style-type: none"> • Power & Water Induction Works labourer. • Covid 19 Restrictions and modifications ongoing. • Evacuation Procedures for Workshop, Community Centre, Administration Office, Cloppenburg Park to be finalised.

7.2 Works Report – June 2020

Works Report June/July 2020	
Staff/HR	Leave – GZ (Recl x4, RDO x1); RR (RDO x1)
Meetings	Staff Toolbox x5 PowerWater x2 TOPROC Animal Management RG
Actions	<p><u>Power Water</u></p> <ul style="list-style-type: none"> • Bore Runs x 9 • Water Samples x 10 • Imulak Spring fence replaced & tree removed <p><u>Jetty Maintenance – COVID-19</u></p> <ul style="list-style-type: none"> • Jetty Wash x 30 • Jetty Carpark turf watering daily • Gate lock replaced <p><u>Waste Maintenance</u></p> <ul style="list-style-type: none"> • Green Waste push up x 5 • Green waste entry track repaired, stumps removed and dirt compacted • Hardwaste compound reviewed, new gates installed with padlocks • Council bins x 8 in, out & cleaned weekly <p><u>Roads Maintenance</u></p> <ul style="list-style-type: none"> • Remove silt Cox Dr Causeway • Snipping Drains Baluria, Erickson, Sasche, Cox, WTR, Delissa • Mow Winal Ct • Shrub removal Sasche, Erickson • Re-position Roadside Barriers x 8 • Construct Barrier x 1 • Barrier shoring Vangemann • Drain clearing Baluria <p><u>Dog Management – Nil</u></p> <p><u>General Maintenance</u></p> <ul style="list-style-type: none"> • Playground equipment checked and sand cleaned • Council grounds turf watering daily • Ongoing work planning for Casuals • General Plant maintenance • OHS & WHS Compliance work • Assisted with preparation of fire-pit for Culture Day, Kids Holiday Program

7.3 Sport & Recreation Report – June 2020

Sport & Recreation Officer Report June/July 2020	
Staff	Leave - Nil ; PD-Nil
Meetings	5 x Staff Toolbox 5 x Beach to Belyuen Committee (Walkers and Runners Group) 1 x Staff Communication 1 x CEO Beach to Belyuen 2 x Belyuen Community Government Council 3 x Darwin Runners & Walkers. 3 x Wagait Beach Supermarket (2 Disco, 1 Runners Breakfast)
Administration Grants Applied Grants awarded Grants Reported Planning Activities/Events Correspondence	<ul style="list-style-type: none"> • Pilates. Coordinate venue use, key exchange, communications. • Youth Vibe Grant – Modify Dates. • Running program and calendars. • Call for community volunteer – additional running program for children. • School Holiday Programming and Logistics. • Logistics (ongoing) around hosting a City to Surf event (Belyuen to Beach) • Prepare equipment and cleaning materials inline with Covid 19 guidelines from NTG. • Grants received: Stimulus Package, Seniors, Youth Vibe • Continue administration updating Sports Ground Facility Design. • Program Design 2021 • Modify activities and dates for grants received from NTG. • Seniors Month Planning
Community Events	<p><u>Stretch Education Session:</u> Invite Community down to a professional development session, stretch education. Weekend opportunity to capture larger audience.</p> <p><u>Movie Night:</u> Support Parent Volunteer with access to data projector, screen, keys to facility. Coordinate pick up, drop off and accountability procedures for council assets.</p> <p><u>Disco:</u> Kids Disco last night of Term 2. Well attended. Thank you Territory Families, Youth Vibe Program.</p>
Programs	<p><u>Runners & Walkers.</u> All ages. A community event based at the jetty to include local produce and stalls for a fun community morning will compliment the premier Wagait Beach Runners & Walkers distance event of the year.</p> <p><u>Stretch & Mobility.</u> Aimed at members of the community who remain within the township during a regular business day.</p> <p><u>Junior sport.</u> Resumed from the 5th June once Covid 19 restrictions were lifted.</p> <p><u>Pilates.</u> All fees attached are directly paid to Encore Pilates.</p> <p><u>After School Program</u></p> <ul style="list-style-type: none"> • Off Road Cycling • Basketball • Functional Movement
2019/20 Shire Performance Indicators	<ol style="list-style-type: none"> 1. Deliver at least 4 activities every month - Achieved 2. Maintain current attendance & participation numbers - Achieved 3. Maintain SafeNT Reg – Achieved
Thank you	<ul style="list-style-type: none"> • Christhol Swanson, Rick Barton Volunteer time on the planning of the Belyuen to Beach Fun Run. • Wagait Beach Supermarket – Donation of lollies, chips toward the Kids End of Term Disco. • S&R Staff Volunteer Hours • NTG Territory Families Youth Vibe, NTG Territory Families Quick Response

Resolution No. 2020/
That Council receives and accepts the Officers Reports for the month of June 2020.
Moved:
Seconded:
Vote:

8.0 ACTION SHEET – June 2020

	Resolution No.	Resolution	Meeting Date	Status
1	2019/438	Wagait Shire Council (Dog Management) By-Laws	16/07/2019	CEO to develop an implementation strategy for Council's consideration that includes resourcing as well as budget implications. CEO to investigate and report to Council in relation to the construction of a dog pound. The dog pound to come back to Council before any action is taken. Council allow the CEO to investigate and report to Council in relation to the construction of a dog pound.
	2019/474		17/09/2019	CEO to develop an implementation strategy and present this to the November 2019 meeting for Council consideration.
	2020/047		19/11/2019	Refer Agenda Item 11.3
			17/03/2020	Council to give guidance on Implementation Strategy before a draft be developed. For discussion. Council to give guidance on Strategy development and CEO to provide update on options for implementation. Council request CEO to continue to develop a Dog Management Implementation Strategy taking Council guidance into consideration.
	2020/		21/04/2020	Correspondence received from NTG-PAC with further recommendations for amendments to the By-Laws.
			19/05/2020	Dog Management Implementation Strategy being finalised and will be used for grant variation request once approved.
			21/07/2020	Refer Agenda Item 10.3 – Shire Business Plan p19 Refer Agenda Item 10.6 – Project Brief Activate Wagait <ul style="list-style-type: none"> • Dog Management Implementation Strategy provided to public at the community consultation on 04/07/20, feedback received by email 21/07/20 TBC • Included to events in Activate Wagait Program • Funding variation pending outcome
2	2019/444	Irrigation at Cloppenburg Park	16/07/2019	That the CEO investigate and arrange to proceed on the existing contract to irrigate Cloppenburg Park. Project nearing completion. Some matters to be resolved in confidential meeting session 17 September 2019.
	2019/474		17/09/2019	CEO to advise Council of additional costs associated with construction and installation of secure cage to address safety concerns. A verbal update will be provided at the October 2019 meeting.

	2020/040		15/10/2019 18/02/2020 17/03/2020 16/06/2020	<p>CEO confirmed an additional \$650.00 was expended on the construction of the bore protective cage. Modification still required for the BMX track.</p> <p>Update to Council:</p> <ul style="list-style-type: none"> notice of Water Extraction License advertised in the NT News on 7 February 2020; dirt from BMX track is being used by Council Works to deal with verge and track issues resulting from storm damage, noting BMX modifications plan still to be advised. <p>Refer Agenda Item 10.3 That Council acquit the project grant funds of \$83 694 as presented by the financial reports.</p> <p>Update to Council:</p> <ul style="list-style-type: none"> request for further information received regarding Careflight helicopter landings on the oval/ requested from Careflight and provided to DENR; redesign of BMX track and upgrades to playground (softfall), court and exercise equipment have been included in budget for 2020-21 (SCALE)
3	2019/461 2019/503 2019/551 2020/078 2020/090 2020/	Audit Committee	20/08/2019 15/10/2019 19/11/2019 19/05/2020 16/06/2020 21/07/2020	<p>Audit Committee TOR requires review and endorsement by Council. In addition, the matter of the Chair and two Council representatives requires resolution. Audit Committee meeting scheduled 26 September 2019 at which the TOR will be endorsed for Council approval, following which other actions will be implemented.</p> <p>Council adopted the revised TOR, nominated Crs N White and G Drake and agreed to call for EO's for Chair and additional Community Member.</p> <p>Council noted Minutes of Audit Committee meeting on 13 November 2019. Council noted Minutes of Audit Committee meeting on 22 January 2019. Refer Agenda Item 10.1 Council noted the Report of the May Audit Committee meeting on 18 May 2020.</p> <p>Refer Agenda Item 10.7 – Policies Endorsed by Audit Committee for Adoption</p> <ul style="list-style-type: none"> Audit Committee endorsed P31, P32 and P34 out of session for Council approval Rescind P21 Dispute Resolution P05 Staff Code of Conduct and P08 Human Resources Management amended to comply with LG Industry Award 2020

4	2019/457	Water Access for Tourists	20/08/2019 19/05/2020 16/06/2020	CEO to investigate options for regulated water access for tourists and visitors to Wagait Beach at either Cloppenburg Park or the PowerWater Compound area. Preliminary discussions held with PowerWater. Pending further research, stakeholder consultation and costings. CEO to provide a report to Council in July 2020 for consideration. Power/Water decline to install a tap for visitor access. Other options might include meter installations at the Council Office or Community Centre.
5	2019/476 2020/	Implement a marketing campaign to highlight the hard waste facility for residents.	15/10/2019 21/04/2020 19/05/2020 16/06/2020 21/07/2020	Council resolved to suspend kerbside quarterly hard waste collection from 2020 to be replaced with annual pre-cyclone collection. The provision of 24/7 hard waste area to be promoted as part of the information campaign leading up to the final kerbside hard waste collection service scheduled for 23 and 24 November 2019. CEO reported hard waste being well-used by community with no major issues. Further permanent signage and open/close hours should be considered. Pending 2020-21 budget approval, CEO will finalise campaign. Refer CEO Report. Refer Agenda Item 10.3 – Shire Business Plan p17 Refer Agenda Item 10.7 – Project Brief Allocation of Stimulus Grants
6	2019/542 2020/	P10 Council Records	19/11/2019 21/07/2020	CEO to report back to Councillors on process with staff training and compliance issues regarding records management. Refer Agenda Item 10.3 – Shire Business Plan p37
7	No Resolution	Boundless Possible Project Welcome to Wagait	19/11/2019 18/03/2020 19/05/2020	For discussion in early 2020 and the Community Consultation session on Thursday 21 November 2019. Was not raised at November CC session. CEO provided update of meeting with WAG and proposed position of a community entry statement/welcome sign. Welcome to Wagait design competition closed on 11 May, panel will meet to assess entries and winner will be announced 22 May 2020. Further design development will be undertaken, pending budget outcomes for 2020-21.

	2020/		21/07/20	Refer Agenda Item 10.3 – Shire Business Plan p21 Refer Agenda Item 10.6 – Project Brief Activate Wagait
8	No Resolution	Sport and Recreation Forward Years Program	19/11/2019 19/05/2020	For discussion in early 2020 with a report on community engagement and expectations. Reports to note. Council have requested CEO to support the S&R Officer to develop a more strategic approach to the S&R Program for Forward Years. Pending budget outcomes for 2020-21 a consultant will be engaged to develop a Strategic Plan for Wagait Sports and Recreation 2021-2025, incorporating community feedback.
	2020/		21/07/20	Refer Agenda Item 10.3 – Shire Business Plan p22
9	No Resolution	Honour Board	15/10/2019 16/06/2020	President Peter Clee requested the CEO investigate the creation of an Honour Board for Wagait Shire Council. Additional Honour Board has been costed at \$1000 and is included in the 2020-21 budget.

Resolution No. 2020/

That Council receives and notes the Action Sheet for the month of June 2020.

Moved:

Seconded:

Vote:

9.0 FINANCIAL REPORT

9.1 Cash Income and Expenditure Report – June 2020

	June 2020 Actual \$	June 2020 Budget \$	Variance in \$	Variance as %	Year to date Actuals \$	Year to date Budget \$	Variance in \$	Variance as %	Actual Approved Budget	Forecast to June 2020	Notes
INCOME											
RATES	\$5,523	\$0	\$5,523	#DIV/0!	\$236,720	\$233,297	\$3,423	1.5%	\$233,297	\$233,297	1
WASTE MANAGEMENT	\$1,917	\$200	\$1,717	0.0%	\$117,840	\$117,800	\$40	0.0%	\$117,800	\$117,800	2
GRANTS - Operational	\$0	\$25,116	-\$25,116	0.0%	\$364,063	\$294,931	\$69,132	23.4%	\$294,931	\$294,931	3
GRANTS - Special Purpose Grants	\$8,954	\$12,000	-\$3,046	0.0%	\$281,218	\$65,700	\$215,518	328.0%	\$65,700	\$65,700	4
CONTRACTS	\$20,250	\$8,350	\$11,900	142.5%	\$114,382	\$98,000	\$16,382	16.7%	\$98,000	\$98,000	5
RENTAL INCOME	\$514	\$675	-\$161	-23.9%	\$6,950	\$8,000	-\$1,050	-13.1%	\$8,000	\$8,000	6
MISCELLANEOUS	\$4,438	\$0	\$4,438	#DIV/0!	\$19,695	\$14,000	\$5,695	40.7%	\$14,000	\$14,000	7
TRANSFER FROM RESERVES		\$0	-\$0	-100.0%	\$0	\$34,500	-\$34,500	-100.0%	\$34,500	\$34,500	8
TOTAL INCOME	\$41,596	\$46,341	-\$4,745	-10.2%	\$1,140,869	\$831,728	\$309,141	37.2%	\$866,228	\$866,228	
EXPENSES											
ADMINISTRATION EXPENSES	\$12,216	\$4,150	-\$8,066	-194.3%	\$103,375	\$103,200	-\$175	-0.2%	\$103,200	\$103,200	9
EMPLOYMENT EXPENSES	\$32,652	\$36,600	\$3,948	10.8%	\$407,153	\$441,300	\$34,147	7.7%	\$441,300	\$441,300	10
ROADS	\$0	\$2,000	\$2,000	0.0%	\$4,605	\$73,000	\$68,395	93.7%	\$73,000	\$73,000	11
CONTRACTS & MATERIALS	\$330	\$900	\$570	0.0%	\$2,940	\$5,000	\$2,060	41.2%	\$5,000	\$5,000	12
REPAIR & MAIN TOWN ASSETS	\$553	\$4,300	\$3,747	87.1%	\$18,090	\$17,400	-\$690	-4.0%	\$17,400	\$17,400	13
VEHICLE & PLANT	\$1,164	\$1,562	\$398	25.5%	\$25,149	\$22,600	-\$2,549	-11.3%	\$22,600	\$22,600	14
GRANT EXPENSES	\$731	\$15,175	\$14,444	95.2%	\$84,509	\$100,200	\$15,691	15.7%	\$67,700	\$67,700	15
WASTE MANAGEMENT	\$14,685	\$12,500	-\$2,185	-17.5%	\$93,836	\$90,000	-\$3,836	-4.3%	\$90,000	\$90,000	16
SERVICES	\$804	\$750	-\$54	-7.2%	\$6,459	\$11,400	\$4,941	43.3%	\$11,400	\$11,400	17
TOTAL EXPENSES	\$63,134	\$77,937	\$14,803	-19.0%	\$746,116	\$864,100	\$117,984	-13.7%	\$831,600	\$831,600	
TOTAL OPERATIONAL SURPLUS / DEF	-\$21,538	-\$31,596	\$10,058	-31.8%	\$394,752	-\$32,372	\$427,124	-1319.4%	\$34,628	\$34,628	
CAPITAL EXPENDITURE	\$2,105	\$0	-\$2,105	0.0%	\$2,105	\$0	\$0	0.0%			

9.2 Notes on Cash Income and Expenditure Report for June 2020

1. June & YTD higher due to the collection of prior year rates
2. June & YTD slightly higher than expected.
3. Grants Year to date higher mainly due to grants being carried forward & not included in budget, as previously advised.
4. Additional Special Purpose Grants received May include Scale 2020 & R2R roads grants. Other grants as advised previously include Senior's week, dog pound, Australia Day & NT Youth Vibe.
5. June & YTD higher than budget
6. June & YTD marginally lower than budgeted, due to no rentals during February.
7. June & Year to date slightly higher than budgeted as stated previously mainly due to interest received being higher than expected
8. Nil
9. June & Year to date over budget, cost not spent as per budget was FBT
10. June & YTD lower than budget
11. June & Year to date lower as stated previously due to budgeted road works not yet commenced
12. June & Year to date lower than budget, mainly due to timing of repairs
13. June lower than budgeted. Year to date marginally higher than budgeted
14. June lower than budget however Year to date slightly higher than budget
15. June & year to date lower than budgeted due to timing of spending of grant funds.
16. June & YTD higher than budget mainly due to regular weekly collections Overall in relation to budget year to date hard & green waste is still under.
17. June & Year to date continue to be lower due to savings being made using solar power, however to be noted water & sewerage charges continue to be over budget to date

9.3 Financial Report for Month ended June 2020

Cash at Bank & on Hand					TOTAL
Petty Cash					\$ -
Un-Deposited Funds					\$ -
CBA - transaction account					\$ 11,255.86
CBA - Cash Saver					\$ 25,070.50
CBA - Fixed Term Deposit 1					\$ 400,000.00
CBA - Fixed Term Deposit 2					\$ 200,000.00
CBA - Fixed Term Deposit 3					\$ 100,000.00
CBA - Fixed Term Deposit 4					\$ 300,000.00
Bendigo Bank - Investment Q/C					\$ 500,000.00
Total Cash at Bank & on Hand					\$ 1,536,326.36
Debtors	Current	> 30 days	> 60 days	> 90 days	
Trade Debtors	19,885.50	200.00	0.00	5,571.00	\$ 25,656.50
Rates 19/20 financial year (not overdue)					\$ -
Rate Arrears				17,181.21	\$ 17,181.21
					\$ 42,837.71
less Rates paid in Advance					-\$ 3,613.10
Total Debtors					\$ 39,224.61
Creditors & Current Liabilities	Current	> 30 days	> 60 days	> 90 days	
Trade	5.89				\$ 5.89
Tax & Super Liabilities	8,840.07				\$ 8,840.07
Sundry Creditors	170.59				\$ 170.59
Unexpended Grants	367,402.19				\$ 367,402.19
Total Creditors & other current Liabilities					\$ 376,418.74
				Net Cash Position	\$ 1,199,132.23

9.4 Rate Payers in Arrears for the Month of June 2020

Rate Payers in Arrears	
<u>Rate Payers in Arrears</u>	
2016-17	\$0.00
2017-18	\$2,547.73
2018-19	\$3,895.21
2019-20	\$10,738.27
	\$17,181.21

9.5 Supplier Payment History – July 2020

Date	Supplier	Particulars	Amount \$
CHEQUE ACCOUNT			
1/06/2020	Wagait Beach Supermarket	Various, fuel cars & machinery etc	\$650.90
1/06/2020	Power Water	Water	\$58.31
1/06/2020	Optus	Telephones	\$256.20
1/06/2020	Marks Rural Services	Water deliveries to CEO house	\$132.00
2/06/2020	Super Clearing	May employee super	\$2,756.65
5/06/2020	R&M Newman	Slashing at Power & water block	\$260.00
11/06/2020	Super Clearing	Employee super previously returned	\$145.58
15/06/2020	Chaplin	Prize money	\$200.00
15/06/2020	MJ Electrical	Electrical repairs CEO house	\$360.00
15/06/2020	Marks Rural Services	Water deliveries to CEO house	\$264.00
15/06/2020	MJ Electrical	Electrical repairs office	\$95.00
15/06/2020	Michele Hughes	Accounting May	\$2,156.00
15/06/2020	CORP Workplace Solutions	Mediation services	\$845.85
15/06/2020	Central Business Equipment	Photocopier	\$164.12
15/06/2020	Veolia Environmental Services	Rubbish Collections	\$6,884.85
15/06/2020	Officeworks	Office supplies	\$396.08
15/06/2020	Harvey Distributors	Cleaning supplies	\$131.34
15/06/2020	Integrated Valuation Services	Valuations	\$1,815.00
15/06/2020	Wagait Beach Supermarket	Various, fuel cars & machinery etc	\$254.55
25/06/2020	Kleenheat Gas	Gas	\$39.60
25/06/2020	Wagait Beach Supermarket	Various, fuel cars & machinery etc	\$318.69
25/06/2020	Colleen Fergusson	Council Meals	\$108.00
25/06/2020	Colleen Fergusson	Council Meals	\$108.00
25/06/2020	Ian Manahan	Water deliveries to CEO house	\$150.00
25/06/2020	Colleen Fergusson	Council Meals	\$80.00
25/06/2020	One Music Australia	Music Licence	\$350.00
25/06/2020	Marks Rural Services	Water deliveries to CEO house	\$132.00
25/06/2020	The Big Mower	Whipper snippers	\$1,380.00
25/06/2020	Michele Hughes	June Accounting	\$1,056.00
25/06/2020	Kevin's Mobile Disco	Kids Disco	\$480.00
25/06/2020	The Big Mower	R&M	\$15.90
25/06/2020	Wagait Beach Supermarket	Various, fuel cars & machinery etc	\$535.01
25/06/2020	Coles Supermarket	BBQ wipers for sports ground	\$8.00
25/06/2020	Think Water	Pump	\$935.00
25/06/2020	Australian Taxation Office (ATO)	May BAS	\$6,703.00
25/06/2020	Power Water	Water	\$79.97
25/06/2020	Optus	Telephones	\$259.70
25/06/2020	Smartlab	Mobile phone repairs	\$154.50
26/06/2020	Central Business Equipment	Photocopier	\$174.41
30/06/2020	Sureline Mercantile & Commercial Agency	Debt Collection	\$242.00
30/06/2020	Sureline Mercantile & Commercial Agency	Debt Collection	\$242.00
30/06/2020	Sureline Mercantile & Commercial Agency	Debt Collection	\$242.00
30/06/2020	Sureline Mercantile & Commercial Agency	Debt Collection	\$275.00
30/06/2020	Sureline Mercantile & Commercial Agency	Debt Collection	\$242.00
30/06/2020	Harvey Distributors	Cleaning supplies	\$321.00
30/06/2020	Veolia Environmental Services	Rubbish Collections	\$8,319.19
30/06/2020	Rick Barton	Consultancy WHS	\$1,800.00
30/06/2020	Wagait Beach Supermarket	Various, fuel cars & machinery etc	\$355.86
30/06/2020	Officeworks	Office supplies	\$41.05

CREDIT CARD ACCOUNT			
2/06/2020	Xero	Software subscription	\$90.00
3/06/2020	MYOB Australia Pty Ltd	Software subscription	\$140.00
3/06/2020	Think Water	Rotaing nozzle for pump	\$200.20
3/06/2020	City of Darwin	TOPROC membership	\$47.52
4/06/2020	Road Tech Marine	Safety shoes - work crew	\$119.90
6/06/2020	Microsoft	Software subscription	\$75.68
6/06/2020	Microsoft	Software subscription	\$83.49
8/06/2020	LogMeIn	Online meeting cost	\$41.25
8/06/2020	NT Police, Fire & Emergency Services	Working with children card - volunteer	\$7.00
9/06/2020	Top Lock	Padlocks Jetty & Hard waste	\$231.00
9/06/2020	NT Police, Fire & Emergency Services	Working with children card - volunteer	\$7.00
17/06/2020	Trojon Fencing	Gates for hard waste area	\$795.00
22/06/2020	Adobe Systems Incorporated	Software subscription	\$36.29
22/06/2020	Adobe Systems Incorporated	Software subscription	\$43.99
22/06/2020	Sealink Ferries	Ferry ticket multi pass	\$102.90
23/06/2020	BWS	Council Meals	\$33.00
23/06/2020	Vietnam Siagon Star	Council Meals	\$99.00
24/06/2020	Mister Minit	workshop gate key	\$8.95
24/06/2020	Think Water	Hose fittings	\$19.55
25/06/2020	Think Water	Fitting for pump	\$29.25
29/06/2020	cabcharge	CEO LGANT meeting	\$8.93
29/06/2020	United Petroleum	CEO Fuel	\$73.43
29/06/2020	cabcharge	CEO LGANT meeting	\$13.23
30/06/2020	Officeworks	Self inking stamp	\$75.00

9.6 Grants Report

Date Received	Grant	From	Amount	Expended to date	Amount Remaining	Acquittal Due
8/11/2018	Construct Dog Pound and Associated Septic Pit	DLGHCD SPG	\$30,537	\$2,680	\$27,857	Before 31 August 2019 or thereafter for a period of two years.
June 2019	5,000ltr Water Tank	DLGHCD SPG	\$7,607		\$7,607	30 June 2020
June 2019	Electronic Records Management System	NTG	\$34,889	\$30,984.74	\$3,904.26	30 June 2020 (request for extension submitted)
14 April 2020	Youth Engagement Grants Program Youth Week	Territory Families	\$2,000	\$0	\$2,000	Deferred to Oct 2020 due to COVID-19
May 2020	SCALE – COVID-19	DLGHCD	\$100,000	\$0	\$100,000	
May 2020	R2R	Comm DRT	\$125,000	\$0	\$125,000	
May 2020	GP advance	FAA	\$3,976	\$0	\$3,976	
May 2020	Roads advance	FAA	\$29,037	\$0	\$29,037	
June 2020	Remote Sports Program Stimulus Package Round 2 (Grant period 20 June to 31 July)	Dept Tourism, Sport & Culture	\$4,954.00	\$0	\$4,954.00	31 August 2020
June 2020	Quick Response – Youth Engagement Grant	Territory Families	\$2,000.00	\$1,299.91	\$700.09	TBA
June 2020	Youth vibe – School Holiday Program	Territory Families	\$2,000.00	\$687.55	\$1,312.45	24 August 2020
July 2020	Seniors Month Grant	Territory Families	\$2,000.00	\$0	\$2,000	28 September 2020

9.7 Councillor Allowance – June 2020

The total payment to Councillors from 1 July to 30 June 2020 is \$2700.

Resolution No. 2020/.....

That Council receives and accepts the Financial Reports for the month of June 2020.

Moved:

Seconded:

Vote:

10.0 AGENDA ITEMS

10.1 Declaration of Rates and Charges 2020-2021



Local Government Act Declaration of Rates and Charges 2020 – 2021

Notice is hereby given, pursuant to Section 158 of the Local Government Act, that the following rates and charges were declared by the Wagait Shire Council at the Ordinary Meeting held on 21 July 2020 pursuant to **Chapter 11 of the Local Government Act 2008** (*the Act*) in respect of the financial year ending 30 June 2021.

1. Rates

Wagait Shire Council (the "Council") made the following declaration of rates pursuant to Chapter 11 of the Act.

- 1.1. Council, pursuant to Section 148 of the Act, adopted the fixed charge method as the basis for determining the assessment of all allotments within the Council area.
- 1.2. Council, pursuant to Section 155 of the Act declared that it intends to raise, for general purposes by way of rates, the amount of \$235,904 which will be raised by the application of a fixed charge amount of \$608 per allotment being payable for the financial year ending 30 June 2021. This is an increase of 1.8% from the rates amount agreed in 2019-20.

2. Charges

Pursuant to Section 157 of the Act, Council declared the following charge for the purpose of enabling or assisting Council to meet the cost of garbage collection and disposal services for the benefit of all allotments within the Council area. Council intends to raise \$119,116 by this charge.

- a. The following charge was declared:
 - A charge of \$307.00 per annum per allotment in respect of kerbside garbage, green waste and hard waste services provided for the benefit of all allotments within the Council area.
- b. The services are:
 - A kerbside garbage collection service of one garbage collection visit per week, being a maximum of one (1) 240 litre mobile bin per collection;
 - Provision of access to a hard waste recycling and dumping facility; and
 - Provision of access to a green waste recycling and dumping facility.

3. Relevant Interest Rate

The relevant interest rate for the late payment of rates and charges is fixed in accordance with Section 162 of the Act at the rate of 18% per annum and is to be calculated on a daily basis.

4. Payment

Rates and charges declared under this declaration may be paid by four (4) approximately equal instalments on the following dates, namely:

- First instalment, 30 September 2020
- Second instalment, 30 November 2020
- Third instalment, 31 January 2021
- Fourth instalment, 31 March 2021

Instalments falling due on a weekend or public holiday may be paid by the following business day, without incurring any penalty.

- a. Details of due dates and specified amounts are listed on the relevant Rates Notice
- b. Variations to those options for payment will be administered according to the conditions outlined on the front and reverse of the Rates Notice
- c. A ratepayer who fails to abide by such conditions may be sued for recovery of the principal amount of the rates and charges, the late payment and costs reasonably incurred by Council in recovering or attempting to recover the rates and charges. If rates are payable by the owner of the land and are not paid by the due date, they become a charge on the land to which they relate.

Renita Glencross

Chief Executive Officer, Wagait Shire Council
17 July 2020

Resolution No. 2020/.....

That Council note the Declaration of Rates and Charges 2020-2021 made by the CEO, as required by Section 155(1) of the Act, declaring rates to be set at \$..... per annum; and that council fees, levies and charges as detailed in the Shire Plan and Annual Budget for 2020-2021 be adopted.

Moved:

Seconded:

Vote:

10.2 Fleetcare – Master Facility Agreement – Corporate Leasing \$70,000

Background

The CEO vehicle is currently overdue for replacement and was recommended to Council by resolution 2019/529 of the Audit Committee at their meeting 13/11/2019:

- a) a replacement vehicle better fit for purpose with improved economy be purchased during 2020/2021 financial year; and
- b) the current Chief Executive Officer’s vehicle be sold through commercial auction following the delivery of the replacement vehicle.

Council received and noted the report at its meeting 19 November 2019 and agreed the matter of a replacement vehicle will form part of budget deliberations for 2020-2021 financial year.

The CEO vehicle is a component of the CEO salary package, valued at \$15 000 per annum.

Current Situation

The CEO proposes Council to approve an operating lease for a replacement vehicle rather than purchase a new vehicle, to assist business cash flow and reduce Council depreciation expenses. An operating lease includes all on road costs and servicing.

A Corporate Leasing Master Facility Agreement from Fleetcare is required to substantiate the lease, which will enable other Council vehicles (such as the Works vehicle) to be leased at a time in the future if required.

The Master Facility Agreement is for \$70 000 and the quotation for the operating lease payment is \$1297.38 per month.

The current CEO vehicle will be sold through commercial auction following the delivery of the replacement vehicle and the cash income deposited in Council reserve accounts.

Resolution No. 2020/.....

That Council approve the CEO to proceed with the Corporate Leasing Master Facility Agreement from Fleetcare to receive a vehicle under operating lease payment is \$1297.38 per month.

Moved:

Seconded:

Vote:

10.3 Shire Business Plan 2020-2021

The 2020-2021 Shire Business Plan (the Plan) was prepared and advertised in accordance with the legislation and includes an annual budget for 2020-2021 and a long term financial plan for 2020-2025.

The Plan also identifies minor and major capital works, infrastructure upgrades, business development, administrative actions, events and activities that will be undertaken or considered during 2020-2021.

A copy of the Plan is at Attachment A.

A public consultation was held on Saturday 4 July and submission of public comments closed on 10 July 2020. Four (4) comments were received via email from: Department of Local Government Housing and Community Development, Chris Tyzack, Peter Clee and Chris Chaplin. A copy of the notes from the public consultation available on the Council website and is attached to the agenda at Attachment B.

Resolution No. 2020/.....
That Council endorse and adopt the 2020-2021 Shire Business Plan as amended as required by Section 24(1) of the Act.
Moved:
Seconded:
Vote:

10.4 Annual Budget 2020/2021 and Long Term Financial Plan 2020-25

Resolution No. 2020/.....
That Council adopt the Annual Budget for the Financial Year 2020-2021 and the Long Term Financial Plan 2020-2025 as required by Section 128(1) of the Act.
Moved:
Seconded:
Vote:

10.5 Thank you – Barry Bamford

Barry Bamford resigned as a member of the Audit Committee on Tuesday 16 June 2020. Council thanks Barry for his commitment and contributions to the works of the Wagait Shire Council Audit committee.

Resolution No. 2020/.....
Council thanks Barry Bamford for his commitment and contributions to the works of the Wagait shire Council Audit Committee and wishes him every success in his future endeavors.
Moved:
Seconded:
Vote:

10.6 Climate Change Risk Assessment and Adaption Planning

In 2009-2010 Council participated in the development of a paper, 'Climate Change Risk Assessment and Adaptation Planning'. The paper was prepared by AECOM Australia Ltd, supported by LGANT and funded by the Commonwealth Department of Climate Change and Energy Efficiency.

The paper provides an in-depth analysis of potential risks to the community through Climate Change and proposes a range of mitigation strategies and adaptation options for consideration. The information will be useful in strategic forward planning of the local area.

The document is provided for your reference as a separate attachment.

<p>Resolution No. 2020/..... That Council note the information provided. Moved: Seconded: Vote:</p>
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10.7 Projects Brief – Allocation of Stimulus Grants and Activate Wagait

In June 2020, new stimulus funds 'SCALE' were received from the NT Department of Local Government, Housing and Community Development (DLGHCD), replacing the usual Special Purpose Grants usually available to local government councils throughout the year. Wagait Shire Council received \$100 000 SCALE funds which are conditional on activating commercial and business rates concessions in the local government area. Council accepted these funds and adopted the policy in relation to waiving and deferring rates for commercial ratepayers based on hardship at the May Council Meeting, by Resolution 2020/079.

Also in June 2020, the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications (DITRDC) advised Council of further stimulus funds of \$25 111 under the Local Roads and Community Infrastructure Program (LRCI).

There is a requirement for both grants to be allocated as soon as possible.

A budget of projects identified by the community, Elected Members and Council staff is prepared below for Council consideration and approval.

Further details of two items; the Strategic Planning Land Use & Environment and the Activate Wagait & 25 Year Celebrations, are the subject of a *New Project Brief – Activate Wagait*, which is provided for you reference as a separate attachment.

NEW STIMULUS FUNDS 2020-21	
SCALE Funds (NT DLGHCD)	\$ 100,000.00
LCRI (Comm DITRDC)	\$ 25,111.00
TOTAL	\$ 125,111.00
Estimated cost on rates waiver for Commercial 2 x (\$596.90/4 = \$149.22)	\$ 298.44
Estimated cost on rates waiver for Business 10 x (\$596.90/4 = \$149.22)	\$ 1,492.20
TOTAL	\$ 1,790.64
Remainder	\$ 123,320.36

Projects 2019-20-21	Cost
Playground /BMX /court upgrades	\$ 50,000.00
CCTV for Works Shed/HW & and Office (Int)	\$ 10,000.00
Road access upgrades for green waste	\$ 25,111.00
Welcome to Wagait & community signage	\$ 10,000.00
Strategic Planning Land Use & Environment	\$ 10,000.00
Activate Wagait & 25 Year Celebrations	\$ 12,500.00
TOTAL	\$ 117,611.00
Remainder	\$ 5,709.36

Resolution No. 2020/.....
That Council approve the proposed budget for allocation of stimulus grants and direct the CEO to proceed with projects as outlined.
Moved:
Seconded:
Vote:

10.8 Policies Endorsed by Audit Committee for Adoption by Council

- a) At the June Council Meeting, Resolution 2020/091 accepted the Audit Committee Report for 18 May 2020 noting that *P31 Dispute Resolution, Counselling, Disciplining and Dismissal* and *P32 Discrimination, Harassment and Bullying Policy* would be endorsed out of session by the Committee for Council approval. P31 replaces *P21 Dispute Resolution* which will be rescinded.
- b) At the May Council Meeting, Resolutions 2020/080 adopted *P05 Staff Code of Conduct* and 2020/081 adopted *P08 Human Resources Management* as endorsed by the Audit Committee. In June 2020, the Local Government Industry Award 2020 passed through the Legislative Assembly and P05 and P08 have been updated to reflect this new legislation.
- c) At the June Council Meeting, Resolution 2020/093 accepted the Elected Member Allowances for 2020-21 and *P34 Elected Members Allowances 2020-21* has been updated to reflect these arrangements.

Resolution No. 2020/.....

That Council:


- a) **adopt P31 Dispute Resolution, Counselling, Disciplining and Dismissal and P32 Discrimination, Harassment and Bullying Policy and rescind P21 Dispute Resolution;**
- b) **adopt the updated P05 Staff Code of Conduct and 2020/081 adopted P08 Human Resources Management; and**
- c) **adopt the updated P34 Elected Members Allowances 2020-21.**

Moved:

Seconded:

Vote:

P05 Council Staff Code of Conduct

	POLICY NUMBER:	P05
	COUNCIL EMPLOYEES CODE OF CONDUCT	
	CATEGORY:	COUNCIL POLICY
	SP CLASSIFICATION:	GOVERNANCE
	LG ACT 2020 REF:	
	RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER

1. PURPOSE

The purpose of this policy is to provide clear direction regarding the principles of ethical conduct and standards of behaviour expected from council staff.

2. SCOPE

Pursuant to Section 106 of the *Local Government Act*, the CEO and other members of a council's staff must maintain proper standards of integrity, diligence and concern for the public interest. This policy also relates to Council contractors whilst undertaking works on Council's behalf.

3. DEFINITIONS

For the purposes of this policy, the following definitions apply:

Term	Definition
Workplace participants	Includes the Chief Executive Officer, full-time and part-time staff members, casual employees volunteers and contractors.
The Award	Means the Local Government Industry Award 2020.

4. POLICY

4.1 Principles

- 4.1.1 Council employees have a commitment to deliver professional and committed service to the community and Elected Members of Council and to discharge their duties conscientiously and to the best of their ability.
- 4.1.2 Council employees will act honestly in every aspect of their work and be open and transparent when making decisions or providing advice.
- 4.1.3 Council employees will perform their official duties in such a manner as to ensure that public confidence and trust in the integrity and impartiality of Council is strong.
- 4.1.4 Council employees will respect the law and the resolutions made by the elected member body of the Council.
- 4.1.5 The Chief Executive Officer will make reasonable endeavours to ensure employees have current knowledge of both statutory requirements and best practices relevant to their position.

4.2 Conduct

The following behaviour is considered essential to upholding the principles of good governance at Wagait Shire Council. Failure to comply with any of these behaviours can constitute grounds for disciplinary action against the employee, including dismissal in accordance with Council's P31 Dispute Resolution, Counselling, Disciplining and Dismissal policy. Employees must also comply with all relevant statutory requirements within the *Local Government Act 2008* the *Work Health and Safety (National Uniform Legislation) Act* and *Regulations*. A failure to comply can also constitute grounds for disciplinary action against the employee.

Council employees will:

- 4.2.1 Act with reasonable care, diligence and professionalism in the performance and discharge of official duties.
- 4.2.2 Act in a just, and non-discriminatory way when dealing with all people.
- 4.2.3 Ensure that personal interest, including financial interests, do not influence or interfere with the performance of their role, pursuant to Section 107 Conflict of Interest, of the *Local Government Act 2008*.

4.3 Responsibilities

- 4.3.1 Pursuant to Section 108 Disclosure of confidential information, of the *Local Government Act*, employees will not disclose confidential information obtained in the course of their duties.
- 4.3.2 Employees will always endeavour to provide accurate information to the Council and to the public.
- 4.3.3 Employees will take all reasonable steps to ensure that the information upon which they make decisions or actions is factually correct and that all relevant information has been obtained and considered.
- 4.3.4 Employees will ensure that relationships with external parties do not amount to interference by improper influence, affecting judgement, decisions or actions.
- 4.3.5 Employees will not make public comment in relation to their duties except when specifically authorised to do so.

4.4 Relationships with Council

- 4.4.1 Employees will not make any public criticism of fellow Council employees or elected members.
- 4.4.2 Employees will direct any allegations of breaches of the Code of Conduct for Council Members to the Chief Executive Officer or nominated delegate.

4.5 Gifts and Benefits

- 4.5.1 Employees must not seek gifts or benefits of any kind.
- 4.5.2 Employees must not accept any gift or benefit that may reasonably create a sense of obligation on their part or may be reasonably perceived to be intended to or would reasonably be likely to influence them in carrying out their public duty.

4.6 Use of Council Resources

- 4.6.1 Employees must not use Council resources, including the services of Council staff, for private purposes, unless legally or properly authorised to do so.

4.7 Chief Executive Officer

4.7.1 The Chief Executive Officer must act in accordance with the provisions specific to their position within the *Local Government Act* at all times.

4.8 Complaints

4.8.1 Any person may make a complaint against a Council employee under this Code.

4.8.2 Complaints about an employee's behaviour that is alleged to have breached this Code should be brought to the attention of the Chief Executive Officer.

4.8.3 Complaints about the Chief Executive Officer's behaviour that is alleged to have breached this Code should be brought to the attention of the Council's Principal Member.

4.8.4 In considering the lodgement of a complaint against an employee for a breach of this Code, individuals should be mindful of the obligations outlined in the ICAC Mandatory directions and guidelines.

4.8.5 Nothing in this Code in anyway derogates from the rights of an employee or duties of an employer under the *Fair Work Act 2009*, the *Local Government Industry Award 2020*, or a contract of employment.

5. ASSOCIATED DOCUMENTS

Policy 28 – Media Policy

Policy 30 – Privacy Policy

Policy 31 – Dispute Resolution, Counselling, Disciplining and Dismissal

Policy 45 – Vehicle Use Policy

Policy 50 – Fraud and Corruption Protection

6. REFERENCES AND LEGISLATION

Fair Work Act 2009

Local Government Act 2008

Local Government Industry Award 2020

Office of the Independent Commissioner Against Corruption – Mandatory reporting directions and guidelines

Work Health and Safety (National Uniform Legislation) Act 2011


Work Health and Safety (National Uniform Legislation) Regulations 2011

7. REVIEW HISTORY

Date Approved: 21/04/2009	Approved By Council: Moved: Cr Withnall Seconded: Cr Lamont Vote: AIF	Resolution No. 2008/214	Date for review: Next Council Election
Date Approved: 17/01/2017	Approved By Council: Moved: Co-Op T Dyer Seconded: Cr K Noble Vote: AIF	Resolution No. 2017/08	Date for review:
Date Approved: 19/05/2020	Approved By Council: Moved: President Peter Clee Seconded: Vice President Tom Dyer Vote: AIF	Resolution No. 2020/079	Date for review: 2022

Date Approved: 21/07/2020	Approved By Council: Moved: Seconded: Vote:	Resolution No. 2020/	Date for review: 2022
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P08 Human Resources Management

	POLICY NUMBER:	P08
	HUMAN RESOURCE MANAGEMENT	
	CATEGORY:	COUNCIL POLICY
	SP CLASSIFICATION:	GOVERNANCE
	LG ACT 2020 REF:	
	RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER

1. PURPOSE

The purpose of this policy is to provide clear direction for the employment of Council workplace participants and for the provision of a safe working environment during their employment.

2. SCOPE

This policy applies to all employees of Wagait Shire Council.

3. DEFINITIONS

Term	Definition
Workplace participants	Includes the Chief Executive Officer, full-time and part-time staff members, casual employees, volunteers and contractors.
The Award	Means the Local Government Industry Award 2020.

4. POLICY

Council will ensure it meets its statutory and governance obligations in the recruitment, management and development of its employees in accordance with the requirements of the *Local Government Industry Award 2020*. Council is committed to ensuring it attracts the most suitable individuals, who through a progressive management approach, can make a difference, experience high levels of job satisfaction, whilst working in a safe, healthy, supportive work environment.

4.1 Term of Engagement

The Council favours the granting of two-year contracts with an extension option in the engagement of its employees.

4.2 Selection Process

The selection process for the appointment or promotion of all employees must be based on merit and equity principles and in accordance with requirements of the *Local Government Industry Award 2020* and protocols to ensure the most suitable candidate is selected for the role.

4.3 Induction

All new employees will be required to participate in the approved induction program

upon commencement.

4.4 Training and Development

Staff will have reasonable access to training and development opportunities to enhance their knowledge and skills and to support them for advancement and promotion.

4.5 Employee Entitlements and Payments

Employee terms and conditions of employment shall be in accordance with the *Local Government Industry Award 2020*. The classification and remuneration for each position will be determined against the classification levels and pay schedules as contained in the *Local Government Industry Award 2020*.

4.6 Performance Management

All new employees shall participate in a performance and evaluation review during their initial three months of employment (probationary period) and thereafter will have their performance development review on an annual basis.

4.7 Equal Opportunity and Workplace Harassment

The Council is an equal opportunity employer. The Council will not tolerate any form of discrimination or harassment toward a staff member, or potential member of staff on the grounds of gender, sexuality, marital status, pregnancy, ethnicity, physical or intellectual challenge, age or any other ground (*Council P32 Discrimination, Harassment and Bullying*).

4.8 Grievance and Dispute Resolution

All grievances or disputes raised by an employee will be treated with seriousness, respect, promptness and confidentiality as per the approved policy and procedure (*Council P31 Dispute Resolution, Counselling, Disciplining and Dismissal*).

4.9 Occupational Health, Safety and Environment

The Council is committed to ensuring the health, safety and welfare of its employees by providing an environment where hazards and risk of injury are reduced and/or eliminated.

5. ASSOCIATED DOCUMENTS

P05 Council Staff Code of Conduct

P31 Dispute Resolution, Counselling, Disciplining and Dismissal

P32 Discrimination, Harassment and Bullying

P33 Work Health and Safety Policy

6. REFERENCES AND LEGISLATION


Local Government Act 2008

Local Government Industry Award 2020

7. REVIEW HISTORY

Date Approved: 19/05/2008	Approved By Council Moved: Cr McIntyre Seconded: Cr Lamont Vote: 6 - 0	Resolution No. 2008/228	Date for review: Next Council Election
Date Approved: 21/07/2020	Approved By Council: Moved: Seconded: Vote:	Resolution No. 2020/	Date for review: 2022

P31 Dispute Resolution, Counselling, Disciplining and Dismissal

	POLICY NUMBER:	P31
	DISPUTE RESOLUTION, COUNSELLING, DISCIPLINING AND DISMISSAL	
	CATEGORY:	COUNCIL POLICY
	SP CLASSIFICATION:	GOVERNANCE
	LG ACT 2020 REF:	
	RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER

1. PURPOSE

The primary purpose of this policy is to establish a fair, equitable and consistent process for addressing grievances or disputes within the workplace, unsatisfactory work performance or alleged instances of inappropriate behaviour or misconduct. The principles of fairness, equity and natural justice will be applied.

2. SCOPE

This policy applies to all grievances raised by all workplace participants including Elected Members of Council and Council committees, employees, contractors and volunteers appointed to Wagait Shire Council and ensures all are treated fairly and consistently and that appropriate action is taken promptly. All reasonable opportunity will also be provided to employees to improve their performance where required.

All workplace participants are bound by the Wagait Shire Council Code of Conduct, employment agreements, role descriptions and internal policies and procedures that provide clarity regarding expected behaviours and conduct of all staff members.

3. DEFINITIONS

Term	Definition
Code of Conduct	The standards of behaviour expected of all employees as outlined in Wagait Shire Council Policy P05 Code of Conduct.
Workplace Participants	Includes all Elected Members, Council employees, contractors, consultants, committee members and any individual or group undertaking activity for or on behalf of the Council.
Employees	Means all those employed by Council including full-time, part-time, contract and casual employees.
Volunteers	Means all volunteers appointed or contracted to the Council, including Council Committee Members.

Natural Justice	The right to be given a fair hearing and the opportunity to present one's case, and the right to have a decision made by an unbiased or objective decision maker.
The Award	Means the Local Government Industry Award 2020.

4. POLICY

All counselling, dispute resolution and disciplinary matters will be kept confidential and be dealt with in a professional manner in accordance with the requirements of the *Local Government Industry Award 2020*.

4.1. Whistleblowers

Workplace participants have an obligation under the Code of Conduct to report any concerns to management who will treat the matter with complete confidence. If you are not satisfied with the explanation or reason given to you, you should raise the matter with the appropriate organisation or body, eg the police, the Environment Protection Agency or the health and safety regulator.

Whistleblowers will not suffer any detriment as a result of any genuine attempt to bring to light matters of concern. However, if this procedure has not been invoked in good faith (eg for malicious reasons or in pursuit of a personal grudge), then you may be subject to disciplinary action up to and including termination.

4.2 Dispute Resolution, Counselling and Mediation

The Wagait Shire Council is committed to ensuring that staff have access to an appropriate grievance resolution process. This is to ensure that a fair and equitable process is followed and actively encourages employees to follow the process in order to resolve workplace grievances.

All employees will be invited to discuss matters with their respective supervisor or co-worker openly and positively. If matters cannot be resolved efficiently and professionally, the employee may contact the Chief Executive Officer (CEO) for assistance. The CEO will see parties individually and/or as a group, to mediate and resolve any outstanding matters. Where resolution cannot be attained, professional mediation and/or counselling services will be called upon.

Throughout the process, all employees may seek guidance and support from a peer or union representative, who are also subject to confidentiality as described at 4.1.

4.3. Self-Resolution

A complainant should attempt to resolve the issue directly with the person(s) concerned. The complainant should identify the specific conduct that has caused offence, explain the impact of that conduct on them and request that the conduct stops. This attempt should be made as soon as possible.

If the complainant is not comfortable attempting to resolve the issue directly with the

person(s) concerned, or if their attempts to resolve the issue are unsuccessful, they should lodge a written complaint.

4.4. Making a Complaint

Written complaints should be made to the complainant's immediate supervisor. If the complaint is about the supervisor, the complaint should be made to the next most senior manager, who will handle the complaint or refer it to another manager at an appropriate level.

If the complaint is about the CEO of Council, the complaint must be made to the President of the Council. The complaint follows the same process described below and should be made as soon as possible.

All complaints should include the following information:

- a) The complainant's name and contact details
- b) Details of the specific incident or issue being complained about
- c) If the complaint is about a person(s), the identity of the person(s) being complained about and their relationship to the complainant
- d) The remedy/outcome the complainant is seeking
- e) Action already taken in an effort to resolve the issue

Complainants should be aware that the supervisor handling their complaint will generally need to disclose details of the complaint to the respondent (if there is one) in order to afford them procedural fairness.

Complainants should consider how they would like their complaint to be handled and indicate their preference from two options: Informal or Formal.

Informal: The informal complaint procedure is more appropriate for less serious issues such as interpersonal conflict or the application of Local Government policies and procedures. The informal procedure may also be appropriate where the parties are likely to continue working together.

Formal: The formal complaint procedure is suited to serious issues such as sexual harassment, discrimination or other similar conduct. It may also be appropriate for sensitive matters or where there is a high level of factual dispute. If the complainant would like their complaint handled under the formal complaint procedure, the complaint must be made in writing and copied to the CEO.

The CEO may still take action without a written complaint if it considers a staff member's health, safety or wellbeing is in jeopardy or if the CEO considers that misconduct or serious misconduct may have occurred.

Whilst the CEO will take into account the complainants preferred option for handling the dispute, the CEO is ultimately responsible for determining which process will be used.

4.4.1. Informal Complaint Procedure

The Complainant's supervisor is responsible for conducting the informal complaint procedure. Under the informal complaint procedure there is a broad range of options for resolving the complaint to the satisfaction of all parties.

The supervisor should take action to resolve the complaint within 14 days.

The following list provides possible options for resolving the dispute in accordance with the informal complaint procedure.

- a) The supervisor meeting with the complainant and respondent (either separately or together) to discuss the issues and explore possible solutions
- b) The supervisor writing to the complainant and respondent to obtain further information about the complaint and explore possible solutions
- c) The supervisor requesting approval from the CEO to arrange a mediation or conciliation session
- d) The supervisor exploring an issue on behalf of the complainant and options to address the issue

If the matter is resolved to the satisfaction of all parties, the matter will be concluded. If the matter is not resolved, the supervisor handling the complaint will determine whether any further action is required. The complainant may also respond if the matter is not resolved.

Information collected during the informal complaint procedure may be provided to the person handling the formal complaint.

4.4.2. Formal Complaint Procedure

The person responsible for conducting the formal complaint procedure is the complainant's supervisor. If the complaint is serious or complex, or if there is a real or perceived conflict of interest, the matter can be referred directly to the CEO. If the complaint is raised against the CEO, then the complainant can request for the matter to be dealt with by the Council President.

4.4.3. Part A: Preliminary Inquiry

Before commencing a formal investigation, the supervisor will normally conduct a preliminary enquiry. The purpose of a preliminary enquiry is to:

- a) Obtain details about the complaint and assess the seriousness of the allegations;
- b) Determine the level of factual dispute;
- c) Assess whether there is sufficient evidence to proceed to a formal investigation

A preliminary enquiry normally involves collecting information from the complainant and the respondent about the complaint. It does not normally involve interviewing witnesses. A preliminary enquiry should be conducted within 21 days of the complaint having been made.

The supervisor will consider the information and determine the next steps.

A matter should not proceed to a formal investigation or misconduct proceeding if there is insufficient evidence, the matter is not serious enough to warrant a formal investigation or misconduct proceeding or if there is not (or little) factual dispute. The supervisor should notify the complainant of the decision and provide reasons for their decision.

4.4.4. Part B: Formal Investigation

If deemed necessary, the supervisor is to conduct a formal investigation, or where there is a real or perceived conflict of interest, can elect to have the CEO or an externally appointed person from outside Council conduct the formal investigation.

The role of the person investigating (investigator) is to collect information about the complaint and make findings about whether the factual allegations are substantiated. The investigator should focus on determining the facts. The investigator should not determine outcomes, this is the role of the CEO. Where the complaint is raised against the CEO, then the outcomes will be determined by the Council.

A formal investigation should be conducted within 6 weeks of the complaint having been made.

4.4.5. Determination of outcomes

The outcomes of the informal or formal complaint procedure will vary depending on the circumstance. Some possible outcomes include:

- a) The parties getting a clear understanding of the issue
- b) An apology (written or verbal)
- c) A change in working arrangements
- d) A commitment to change behaviour
- e) Guidance, counselling or warnings being issued
- f) Disciplinary action

Under the informal complaint procedure, the supervisor handling the complaint is responsible for determining outcomes through discussion and consultation with the parties.

Under the formal complaint procedure, the CEO is responsible for determining outcomes and advising the complainant and the respondent. It may also be appropriate for the supervisor handling the complaint to consult with the CEO about any outcomes which affect the respondent.

Where the complaint is raised against the CEO, then the outcomes will be determined by the Council at a Special Meeting.

A determination of outcomes should occur within 7 days after the conclusion of the complaint procedure.

4.5. Disciplinary Procedure

Whenever an employee is required to attend a meeting regarding a disciplinary issue, the employee may have a support person present where practicable. The type of disciplinary

action taken against an employee is at the Local Government’s discretion and the type of disciplinary action will depend on the seriousness and frequency of any misconduct or performance issue.

Disciplinary action, except in cases of serious misconduct, fraud, and corruption, is an incremental process and can be terminated at any stage. The procedure for implementing disciplinary action is outlined below and in the Process Charts attached:

- Fig 1 – Performance Discipline Process
- Fig 2 – Incident Discipline Process

Offence	1st occasion	2nd occasion	3rd occasion	4th occasion
Unsatisfactory conduct	Formal verbal warning	Written warning	Final written warning	Termination with notice
Misconduct	Final written warning	Termination with notice		
Serious misconduct	Termination with notice			

4.5.1. Step 1 - Warning, Guidance and Counselling

Where an employee’s work performance or conduct is considered to be unsatisfactory, the employee shall be informed, in the first instance, of the nature of the unsatisfactory performance or conduct and of the standard that is required to be achieved.

The employee will be interviewed by their immediate supervisor. The employee has the option of having a peer or union representative present at this interview. The employee will have an opportunity to respond to the allegation(s).

The purpose of the interview will be to identify the causes of the problem and agree on solutions. Where the problem is acknowledged by the employee, a corrective action/performance management plan will be agreed by the employee. A review date will also need to be agreed upon to allow reassessment of the employee to be discussed and assessed.

Should the requisite improvement be forthcoming, it will be acknowledged by the supervisor and no further action will be taken. If no satisfactory improvement occurs, then the matter will proceed to step 2.

A written record of the interview must be kept by the CEO and a copy of the report is to be given to the employee concerned for their own records

4.5.2. Step 2 - Formal Warning

Where there is a recurrence of unsatisfactory work performance or conduct, the employee shall be warned formally in writing by the employee’s supervisor.

The employee shall also be counselled. Counselling should reinforce the standard of work or conduct that is expected and advise the severity of the situation and whether disciplinary action will follow, if the employee's work performance or conduct does not improve. A suitable review period for monitoring the employee's performance will be set at this time.

A written record will be kept of any correspondence for a formal warning and counselling. The employee will be entitled to sight and sign this written record and add any notations regarding the contents of such record.

4.5.3. Step 3 - Final Warning

If the employee's unsatisfactory work performance or conduct continues or resumes following the formal warning and counselling, the employee shall be given a final warning in writing giving notice that disciplinary action will be taken should the unsatisfactory work performance or conduct not cease immediately.

4.5.4. Step 4 – Disciplinary Action

If, after careful consideration and investigation, the CEO reaches the conclusion that the alleged offender is guilty of a breach of discipline which warrants penalty, the CEO may impose one or more of the following:

- a) A change of duties
- b) Performance management
- c) Lateral transfer
- d) Demotion
- e) Suspension or termination of employment

4.6. Termination and dismissal

In cases other than summary dismissal, an employee's employment may be terminated with notice or payment in lieu of notice provided the Local Government has a valid reason for terminating the employee's employment and the employee has an opportunity to respond to the reasons for termination.

4.7. Serious Misconduct, Fraud and Corruption

In cases of serious misconduct, fraud or corruption, workplace participants are required to report suspicions or allegations of fraud and corruption. Workplace participants and Elected Members must familiarise themselves with their obligations under Council's policies, associated procedures and related legislation listed at 5. Associated Documents.

All allegations and suspicions of fraud and corruption will be reported to authorities and investigated. All substantiated cases will be dealt with appropriately either by criminal, disciplinary or administrative mechanisms appropriate to the case.

Workplace participants may be suspended while an investigation occurs and will be

dismissed if serious misconduct, fraud or corruption is proved.

Please refer to Council Policy P50 Fraud and Corruption Protection for reporting processes.

5. ASSOCIATED DOCUMENTS

- P05 Code of Conduct
- P08 Human Resource Management
- P32 Discrimination, Harassment and Bullying
- P33 Work Health and Safety
- P50 Fraud and Corruption Protection
- Wagait Shire Council Employees Handbook

6. REFERENCES AND LEGISLATION

- Fair Work Act 2009*
- Local Government Act 2008 (NT)*
- Local Government (Accounting) Regulations (NT)*
- Local Government Industry Award 2020*

7. REVIEW HISTORY

Date Approved: 17/01/2017	Approved By Council Moved: V Pres B Irvine Seconded: Cr T Dyer Vote: Carried	Resolution No. 2017/06	Date for review: Next Council Election
Date Approved: 21/02/2017	Approved By Council Moved: Pres Peter Clee Seconded: Cr A Richmond Vote: Carried	Resolution No. 2017/14	Date for review: Next Term of Council
Date Approved:	Approved By Council Moved: Seconded: Vote:	Resolution No.	Date for review:

FIG 1. Performance Discipline Process

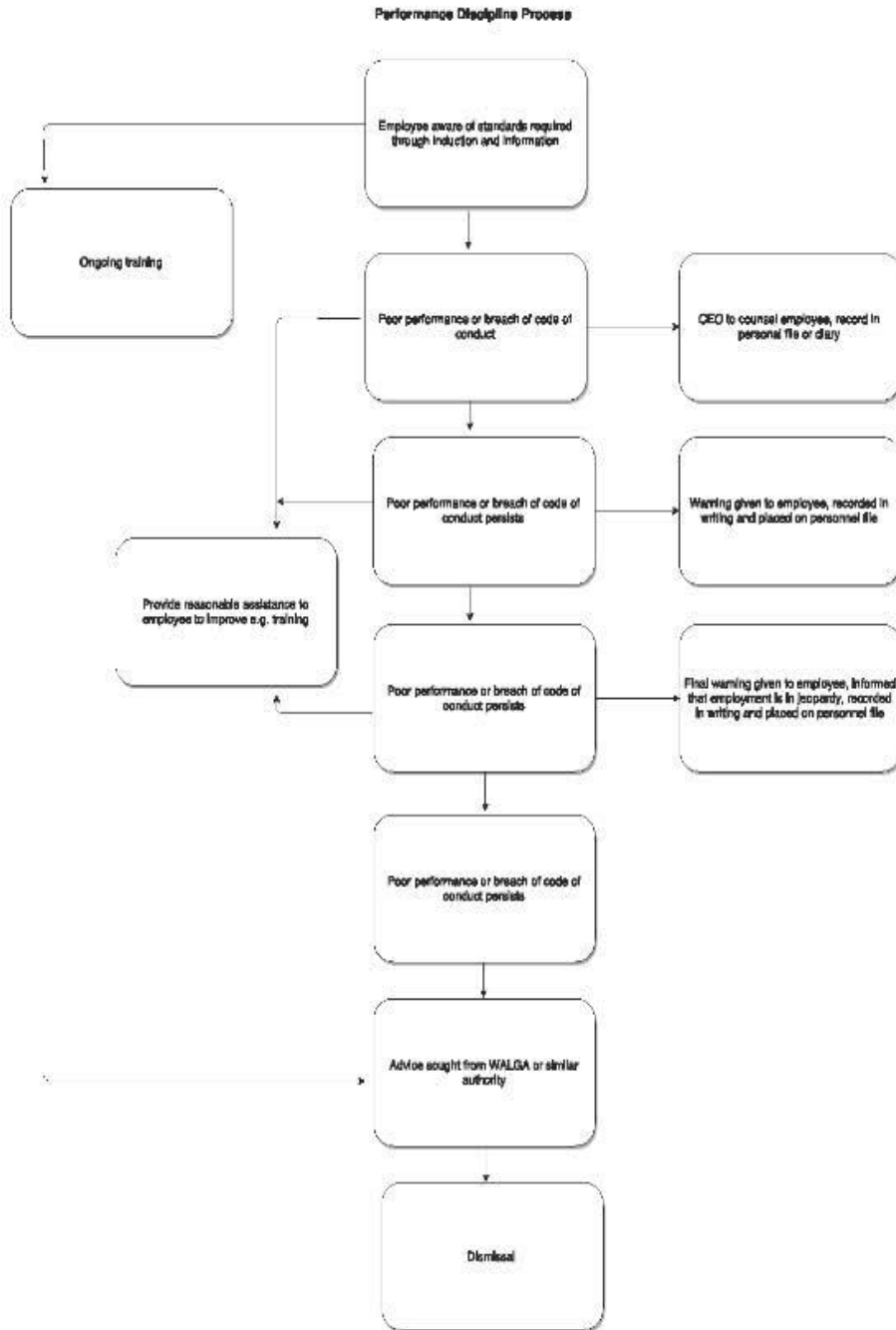
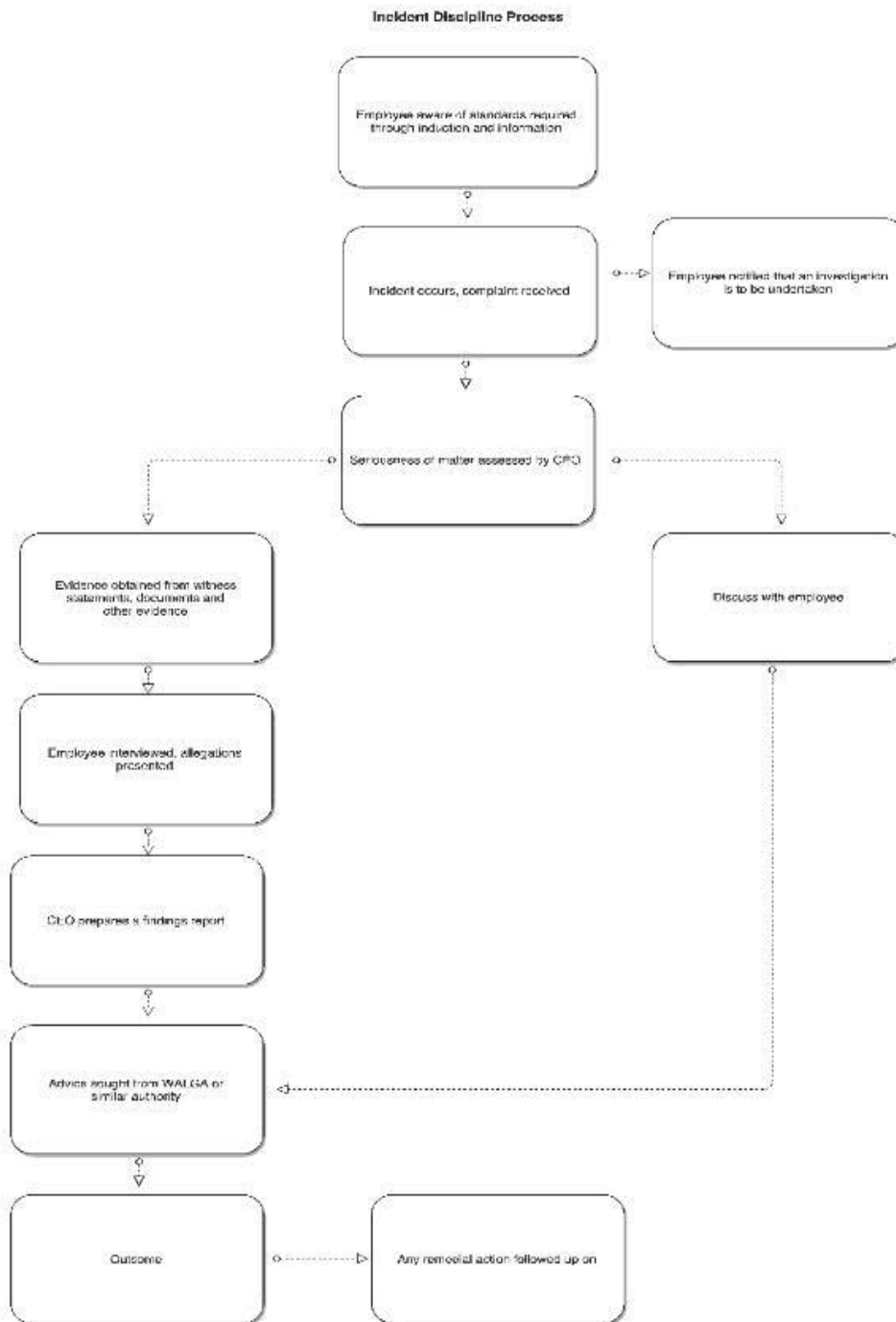



FIG 2. Incident Discipline Process



P32 Discrimination, Harassment and Bullying Policy

	POLICY NUMBER:	P32
	DISCRIMINATION, HARASSMENT AND BULLYING	
	CATEGORY:	COUNCIL POLICY
	SP CLASSIFICATION:	GOVERNANCE
	LG ACT 2020 REF:	
	RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER

1. PURPOSE

Wagait Shire Council is committed to provide a safe working environment, where every person is treated equally, fairly and without prejudice.

2. SCOPE

This policy applies to all Elected Members, employees, contractors and volunteers appointed to Wagait Shire Council and while on the Wagait Shire Council premises or while engaged in Wagait Shire Council business or any related activities.

3. DEFINITIONS

Term	Definition
Workplace Participants	Includes all Elected Members, Council employees, contractors, consultants, committee members and any individual or group undertaking activity for or on behalf of the Council.
Workplace Discrimination	Means any direct or indirect discrimination of any workplace participant because of colour, race, age, sex, religion, ability or impairment, pregnancy, marital status, sexual orientation or sexual preference, political activity or trade union activity.
Workplace Harassment	Means any type of unwelcome action toward another person in the workplace that leads to difficulty in performing assigned tasks or causes a person to feel he or she is working in a hostile environment. This includes unwelcome sexual advance or unwelcome request for sexual favours, in circumstances in which a reasonable person would anticipate that the person harassed would be offended, humiliated or intimidated.
Workplace Bullying	Means repeated and unreasonable behaviour directed towards another person in the workplace, or a group of people in the workplace, that creates a risk to mental or physical health and safety.
Repeated behaviour	Refers to the persistent nature of the behaviours and can involve a range of behaviours over time.

Unreasonable behaviours	Means intentional or unintentional behaviours that a reasonable person, having considered the circumstances, would see as unreasonable, including behaviours that are victimising, humiliating, intimidating, or threatening.
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4. POLICY

Workplace discrimination, harassment or bullying is a risk to health and safety and will not be tolerated in this Council workplace.

In the definition and treatment of these behaviours, Council is guided by the *Fair Work Act 2009*, particularly Chapter 3 Rights and Responsibilities, and the *Safe Work Australia Guide to Preventing and Responding to Workplace Bullying*, which may change from time to time.

Any action taken by Council in response to receiving a report of workplace discrimination, harassment or bullying, will also accommodate the requirements of the *Local Government Award 2020*.

Council will treat all reports of workplace discrimination, harassment or bullying behaviours seriously and take steps to prevent it from occurring and by responding quickly if it does occur.

If workplace discrimination, harassment or bullying behaviour involves violence, such as physical assault or the threat of physical assault, will be reported to the police.

For a comprehensive explanations and guidance, please refer to:

- www.safeworkaustralia.gov.au
- <https://www.legislation.gov.au/Details/C2017C00323>

4.1. Reasonable Management Action

Supervisory staff will take reasonable management action to direct and control the way work is carried out. It is reasonable for managers and supervisors to allocate work and to give fair and reasonable feedback on a worker's performance. These actions are not considered to be workplace bullying if they are carried out lawfully and in a reasonable manner, taking the particular circumstances into account.

4.2 Reporting Procedure

All Council workplace participants are required to:

- Report any incidents of harassment, discrimination or bullying or unreasonable behaviour they see to the employee's line manager or supervisor.
- Follow all policies and procedures provided by the Council.
- Ensure they do not victimise any person making a complaint of harassment, discrimination, or bullying.
- Treat all persons fairly and with respect.

If you feel you are being harassed, bullied or discriminated against, and are not comfortable dealing with the problem yourself, or your attempts to do so have not been successful, the issue can be raised or a written complaint should be lodged with the Chief Executive Officer.

4.3. Council Response Process

If workplace discrimination, harassment, bullying or unreasonable behaviour is reported, Council will follow the process outlined at 4.2.2. *Wagait Shire Council Policy P31 Dispute Resolution, Counselling, Disciplining and Dismissal.*

4.4. Consequences of Breaching this Policy

Appropriate disciplinary action will be taken against any workplace participant who is found to have breached this policy. These measures will depend on the nature and circumstance of each breach and could include:

- A verbal or written apology.
- One or more parties agreeing to participate in counselling or training.
- A verbal or written reprimand transfer, demotion or dismissal of the person engaging in the bullying behaviour.

4.5. Consequences of Unsubstantiated Investigation

If the investigation finds the reported unreasonable behaviour has not occurred or cannot be substantiated, Council may still take appropriate action to address any workplace issues leading to the report.

5. ASSOCIATED DOCUMENTS

P05 Code of Conduct

P08 Human Resource Management

P31 Dispute Resolution, Counselling, Disciplining and Dismissal

P33 Work Health and Safety

Wagait Shire Council Employee Handbook (2020)

Work Health and Safety (WHS) Management Plan

6. REFERENCES AND LEGISLATION

Racial Discrimination Act 1975 (Cth)

Australian Human Rights Commission Act 1986 (Cth)

Disability Discrimination Act 1992 (Cth)

Local Government Act 2008 (NT)

Fair Work Act 2009


Work Health and Safety (WHZS) Act 2011

Local Government Industry Award 2020

7. REVIEW HISTORY

Date Approved:	Approved by Council Moved: Seconded: Vote:	Resolution No.	Date for Review:
Date Approved:	Approved by Council	Resolution No.	Date for Review:

P34 Elected Members Allowance

	POLICY NUMBER:	P34
	ELECTED MEMBER ALLOWANCES	
	CATEGORY:	COUNCIL POLICY
	CLASSIFICATION:	GOVERNANCE
	LG ACT 2020 REF:	
	RESPONSIBLE OFFICER:	CHIEF EXECUTIVE OFFICER

1. PURPOSE:

This policy establishes the maximum allowances to be paid to elected members during the 2020/2021 financial year.

2. SCOPE:

This policy applies to all elected members.

3. DEFINITIONS:

Approval: Means approval of the council or the CEO according council policy.

Acting Principal Member: Refers to a person appointed pursuant to section 43(2)(b), section 43(2)(c), or section 43(3) of the Local Government Act.

Base Allowance: The base allowance covers those activities required of a council member in the performance of his or her role as an elected representative. Without limiting the generality of the preceding sentence, the base allowance covers:

- 1) Agenda study and meeting preparation;
- 2) Attendance at regular council meetings;
- 3) Attendance at council functions as a council representative;
- 4) Constituency responsibilities; and
- 5) Council representation outside the municipality / shire area, including delegations interstate and overseas, unless such representation has extra meeting approval.

Electoral Allowance: An allowance provided to assist council members with electoral matters. It may be used at the discretion of individual council members.

Extra Meeting Allowance:

- 1) A council must not pay an extra meeting allowance unless the council has a policy which determines which meetings will attract the allowance.
- 2) For a principal member, deputy principal member and acting principal member, this allowance is not paid separately. It is provided for and included in the base allowance.
- 3) For other council members this allowance is paid only in accordance with council policy and after an approved claim is made at the end of the relevant month.
- 4) The extra meeting allowance must not be paid for those meetings as covered by the base allowance.
- 5) The extra meeting allowance is capped for each financial year.

Extra Meeting – An “Extra Meeting” may be defined as follows:

- 1) Council Committee meetings;
- 2) Council Advisory Committee meetings;
- 3) Council Workshops;
- 4) Meetings of external agencies or organisations to which council has formally appointed or nominated through or with LGANT, a representative;
- 5) Other meetings as a council representative approved by CEO;

4. POLICY:

Pursuant to Section 71(1) of the Local Government Act, a member of a council is entitled to be paid an allowance by the council. Allowances for each financial year are to be fixed as part of the council’s budget for the relevant financial year.

Pursuant to Section 71(5) of the Local Government Act, allowances are not to be paid in advance.

Ministerial Guideline 2 deems Wagait Shire Council a Category 4 council.

Ministerial Guideline 2 outlines maximum allowances for a Category 4 council.

The maximum permissible allowances as set by the Minister for the 2020-2021 financial year are as follows:

Shire Councils 2020-21	Principal Member	Deputy Principal Member	Ordinary Member
Base Allowance	\$25,039.28	\$9,259.53	\$4,503.32
Electoral Allowance	\$6,590.44	\$1,647.90	\$1,647.90
Professional Development Allowance	\$3,753.17	\$3,753.17	\$3,753.17
Max Extra Meeting Allowance	Not applicable	Not applicable	\$3,003.01

On 16 June 2020 Council resolved to pay Elected Members 14.5% of the Base Allowance set by the Minister and to pay a set professional development allowance of \$500 per Elected Member for the 2020-2021 financial year as follows:

Elected Member Allowances 2020-21	Principal Member	Deputy Principal Member	Ordinary Member
Base Allowance	\$3,630.69	\$1,342.63	\$652.98
Electoral Allowance	-	-	-
Professional Development Allowance	\$500	\$500	\$500
Max Extra Meeting Allowance	Not applicable	Not applicable	-

Payments for allowances will be lodged with Council’s bank on the last day of every month.

5. ASSOCIATED DOCUMENTS

Nil.

6. REFERENCES AND LEGISLATION

Local Government Act 2008 Section 71

Ministerial Guideline 2 – Allowances for Council Members.

7. REVIEW HISTORY

Date Approved: 19/7/2016	Approved By: Moved: President Peter Clee Seconded: Councillor VJ Thorpe	Resolution No: 2016/060	Date for review: July 2017
Date Approved: 26/6/2018	Approved By: Moved: Cr Neil White Seconded: Cr Shenagh Gamble Vote: AIF	Resolution No: 2018/200	Date for review: June 2019
Date Approved: 21/05/2019	Approved By: Moved: Vice President Tom Dyer Seconded: Cr Michael Vaughan Vote: AIF	Resolution No: 2019/405	Date for review: June 2020
Date Approved: 19/06/2020	Approved By: Moved: Cr Michael Vaughan Seconded: Vice-President Tom Dyer Vote: AIF	Resolution No: 2020/092	Date for review: June 2021

10.9 Records Management System – Partial Acquittal

The Department has requested Council to provide a partial acquittal for the Records Management System. The Special Purpose Grant agreement stipulates the fund must be acquitted as at 30 June 2020, however the full amount has not yet been expended and a full acquittal will be provided when funds are fully expended.

Resolution No. 2020/.....

That Council acquit the amount of \$30,984.74, this being a proportion of the overall grant monies, towards the commissioning and installation of an electronic records management system (Council Wise) including migration and renewal of Councils IT infrastructure.

Moved:

Seconded:

Vote:

10.10 Insurance Valuation Report

An insurance valuation report was completed by Integrated Valuation Services on 14 May 2020 to assist Council’s preparation of the 2020-2021 Budget and insurance reports.

The Insurance Valuation report is attached as a separate item to the agenda.

Resolution No. 2020/.....

That Council notes the information in the Insurance Valuation Report.

Moved:

Seconded:

Vote:

10.11 Community Consultation – Saturday 4 July 2020



Wagait Shire Council Half Yearly Community Consultation Meeting 10am Saturday 4 July 2020

Present: President Neil White, Vice President Cr Dyer, Cr Graham Drake, Cr Michael Vaughan, Cr Clee; Wagait Beach Community Members (20); Wagait Shire Council CEO and Office Manager

Apologies: Chris Chaplin

President Neil White welcomed everyone to the meeting then handed over to Vice President Cr Dyer.

Cr Dyer explained the Half Yearly Community Consultation Meetings are part of Council's communication and engagement strategy. This meeting was delayed due to COVID-19 measures in place March-June 2020 and the timing of this meeting was an opportunity to share and discuss the draft 2020-21 Shire Business Plan.

Cr Dyer handed over to the CEO to introduce the Plan.

CEO introduced the Shire Business Plan saying Council staff have been working hard to deliver community services and maintain assets as caretaker for facilities owned by the community. This will continue to be a challenge for a small team, with a limited financial rates base and a huge liability in the amount of infrastructure it is responsible for. It is also anticipated that the coming year will be fiscally 'tight' and securing grants would be very competitive due to lack of NT Government funds available for infrastructure upgrades. CEO anticipates it will be a year of consolidation and repair for Council. CEO commented that the Plan and Budget reflects this and hopes that everyone has an opportunity to read and comment today or provide feedback by email before the 10 July 2020.

Cr Dyer led Council presentation in an overview of the draft 2020-21 Shire Business Plan, using the Shire Service Delivery Plan headings to discuss highlights and priority projects responding to specific issues.

1. Community Infrastructure

- 1.1. **Maintenance and Upgrade of Parks, Reserves and Open Space** – upgrades are planned to ensure playground and exercise equipment is safe. The water extraction license is still pending and BMX track will need to be redesigned around the bore. Signage was also noted as a key priority to stop people driving on the oval and deter unwanted behaviour generally.
- 1.2. **Maintenance of Public Buildings** – asset register complete and maintenance schedule is being developed to assist in accurate reporting insurance and valuation.
- 1.3. **Road Upgrades and Construction** – priority maintenance includes improvements to Cox Drive floodway and green waste track, funds are secured for these projects. Planning and preparation for other major road projects will be undertaken in 2020-21, including formal road audit, protection barriers on dangerous culverts; extension of a bike path on WTR and resheet of all estate roads.

- Community raised concerns regarding the resheet roads, with discussion and suggestions ranging from only do the worst/busiest roads to do all roads. Council confirmed the cost for resheet was prohibitive currently (aprox \$2.5M), even with reserves of aprox \$1M additional funds or a loan would be needed; but agreed that something needs to be done asap on certain areas. Erickson Crescent was raised as a priority. Council noted that the legal implications of road safety made this a priority for Council to address.
- 1.4. **Roads Maintenance** – continued general maintenance and management of estate roads and verges including weeds and blocked drains.
- Community raised concerns about drains and culverts regarding weeds and safety barriers, as well as bollards at the end of Wagait Tower Rd.
- 1.5. **Traffic Management** – road signage to improve road safety is a priority for 2020-21.
- 1.6. **Fleet Plant and Equipment Maintenance** – continued general maintenance on plant and equipment; operational leases for staff vehicles to reduce costs and regulate cash flow
2. **Environmental Heath**
- 2.1. **Waste Management** - Cr Dyer outlined the history of waste management in the Shire and following the closure of the community dump, a contract was awarded for domestic kerbside waste service. This was complemented by a quarterly hard waste collection which ceased in November 2019. The new waste management contract with Veolia, includes the provision of hard waste bulk bins, that are located in a compound on the Council grounds behind the Community Centre and is free to residents. Recently, the compound closed for a week due to dumping of prohibited waste and reopened in early June with a new terms and conditions, including support staff on hand and new bays to provide opportunity for upcycling of items. Additional opening hours may be considered for seniors or shift-workers if there is a demand.
- Community enquired about long term planning and consideration of a new waste transfer station however Council has determined at this stage it would cost prohibitive. Viability could be reassessed in discussions with Larrakia Development Corporation.
 - Community suggested the road/track into Green Waste area needs improving. Generally considered a good concept but some concern re location near to Park play area. Issue of recycling (chipping the green waste) rather than burning was raised.
 - Community suggested the possibility for Hard Waste to be contracted to local entrepreneur and become a profit-making enterprise.
 - Community also enquired about glass and plastic recycling.
- 2.2. **Weed Control and Fire Hazard Reduction** – continued maintenance and improved planning for weeds control through liaison with Crown Lands office, NT Weeds Branch and the Bushfire Brigade.
- 2.3. **Animal Welfare and Management** – implementation of local by-laws is a priority for 2020-21. CEO stated copies of the proposed plan are available which shows Council will take a common-sense approach to the implementation with emphasis placed on community awareness and education to encourage responsible dog ownership, rather than enforcement. The implementation strategy is based on low cost and not for profit principles. The estimated implementation cost to Council is \$5000 annually.
- Community agreed that properties either needed to be fully fenced or an area provided to contain animals. Suggestions were made re control of wandering dogs. Dog Management plan to be introduced in the near future. CEO provided details.

3. **Civic Services**

- 3.1. **Library Services** – future needs to be determined and relocation to a purpose-built structure will be considered.
- 3.2. **Arts, Culture and Heritage** – continue working with local arts, culture and heritage groups as well as NT government agencies to create a calendar of events and a plan for maintaining sites of significance.
- 3.3. **Sports and Recreation** – priorities for 2020-21 include developing a strategy for long term infrastructure and support to attract additional funds for increased programming and activities.
 - Community acknowledged the broader nature of the current activities but concerned more needs to be done for children. Survey of children and their needs was suggested.
- 3.4. **Civic Events** – events this year have been challenged due to Covid-19 measures however Council is celebrating 25 years of local government in 2020 and a way to share this with community is being considered.
- 3.5. **Visitor Accommodation and Tourism** – a local area plan is needed to continue strategic planning development to increase opportunities for sustainable economic growth in this sector.

4. **Community Engagement**

- 4.1. **Administration of Local Laws** – ongoing reviews and development of new policies as required, supported by the Audit Committee.
- 4.2. **Customer Service Management** – maintaining high standards of communications and service delivery.
- 4.3. **Public and Corporate Relations** – website development and community surveys are priorities in this work area for 2020-21. Cr Dyer noted that Council has been publishing a regular monthly e-newsletter as well as providing daily updates on facebook for activities.
 - Community raised concerns for residents and ratepayers still not receiving information via these service methods and ‘falling through the gaps’ and that it still needs to be improved. Suggestions for web-site development and information included in the Annual Rates Notices were put forward. A previous suggestion of a sms style of communication for emergency and other important messages might reach a broader footprint. Council agrees to investigate the setup ad cost of this service.
- 4.4. **Governance** – development of an induction pack for new Councillors, pending the 2021 elections and an annual training plan to increase capacity of Councillors
- 4.5. **Advocacy and Representation** – ongoing.
 - Community queried how Council works with others regarding development including LDA, Marina project, Transfer Station site, and Core Lithium Mine. Cr Dyer explained the requirement for councils to undertake an electoral review during each term. He referred to the consultation exercise that was undertaken by True North for the strategic planning exercise and the view at that time that the current system and arrangements were appropriate. Cr Dyer stated that while the community values its small council and does not want to see further change, the only way to maintain viability and therefore sustainability would be to increase the rates base. Council will be looking at ways in 2020-21 to establish strong relationships with Larrakia Development Corp and Northern Land Council to ensure community interests for critical regional infrastructure is represented.

- Community expressed concern about the poor quality of our current waterpoint facility for smaller vehicles, jinkers etc and asked Council to seek information regarding the upgrades to the water treatment and any future upgrades for the facility.

5. **Commercial Services**

5.1. **Commercial Contracts** – maintain current contract and secure new contracts to increase revenue.

6. **Community Services**

6.1. **Welfare and Social Services** – investigating potential for the clinic services to be expanded and to have regular doctors and specialists provide a service to the community.

6.2. **Emergency Services** – in 2020 the Emergency Committee was re-established and played a big part in community safety during implementation of Covid-19 measures. The Committee is still seeking a Chair and interested parties should speak to the CEO.

7. **Council Administration** was not discussed at the community consultation.

Cr Dyer thanked everyone for attending and offering their questions and suggestions, which would all be considered by Council.

Community Members thanked Cr Clee for his 23 years' service and applauded their appreciation.

The Next Half Yearly Community Consultation will take place in November 2020, TBC.

The meeting concluded at 11:40am and Council invited everyone to share refreshments. Councillors and staff remained until 12:30 to meet personally with residents.

Comments and suggestions from residents attending the meeting were integrated into the presentation of Works plan however are also listed here to clearly identify community priorities raised at the meeting.

- Roads
- Road Safety
- Recycling
- Green Waste
- Hard Waste
- Dog Management
- Sport and Rec
- Communications
- Advocacy and Development
- Water Security

Resolution No. 2020/.....

That Council notes the Half Yearly Community Consultation Meeting held Saturday 4 July 2020.

Moved:

Seconded:

Vote:

11.0 AGENDA ITEMS FOR RECEIVING AND NOTING

Nil

12.0 QUESTIONS FROM MEMBERS – WITH OR WITHOUT NOTICE

Nil

13.0 QUESTIONS FROM THE PUBLIC – WITH NOTICE

Nil

14.0 PETITIONS/DEPUTATIONS

Nil

15.0 UPCOMING EVENTS

15.1 Wagait Arts Group (WAG) Festival

The WAG event initially planned for late July has had to be postponed due to COVID-19 to a date yet to be arranged. The WAG committee is meeting in July to consider plans going forward.

15.2 Senior Month

Scheduled for August 2020, grants are confirmed to deliver a range of new experiences and workshops for healthy, social, and creative elders.

15.3 Dog Day

The dog registration information session is scheduled to be held on 29 August 2020.

16.0 LATE ITEMS AND GENERAL BUSINESS

17.0 IN-CAMERA ITEMS

Resolution No. 2020/.....

That Council close the meeting to the general public in accordance with section 65(2) of the Local Government Act to enable Council to discuss in a Confidential Session an item described under Local Government (Administration) regulation 8;

- a) information about the personal circumstances of a residence or rate payer;
- b) information that would, if publicly disclosed, be likely to: (iv) prejudice the interests of the council or some other person;
- c) information provided to the Council on condition it be kept confidential.

Moved:

Seconded:

Vote:

At pm Council closed the meeting to the general public.

Resolution No. 2020/.....

That Council re-open the meeting to the general public in accordance with Section 65(1) of the Local Government Act.

Moved:

Seconded:

Vote:

At pm Council opened the meeting to the general public.

18.0 DATE OF NEXT MEETING

The next Council Meeting is to be held on Tuesday 18 August 2020 in the Council Chambers, 142 Wagait Tower Road, Wagait Beach NT 0822

19.0 CLOSE OF MEETING

The Chair declared the meeting closed at pm.

Climate Change Risk Assessment and Adaptation Planning

Wagait Shire Council



Climate Change Risk Assessment and Adaptation Planning

Wagait Shire Council

Prepared for

Local Government Association of the Northern Territory

Prepared by

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29 November 2010



Australian Government
**Department of Climate Change
and Energy Efficiency**

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Disclaimer

AECOM has exercised reasonable care when completing this report. However, caution must be taken when considering our conclusions because significant uncertainty remains due to the inherent complexities involved in analysing the past climate and variables typically encountered when modelling future climate change. AECOM cannot guarantee the accuracy of the climate observations and projections described in this report and cannot be responsible for any third party's reliance upon on this information.

Quality Information

Document Climate Change Risk Assessment and Adaptation Planning

Ref j:\60142987 - risk assessment northern territory\8. issued documents\8.1 reports\3.wagait\3.final report\wagait 3.0.doc

Date 29 November 2010

Prepared by Guillaume Prudent-Richard, Michael Nolan and Nicole Conroy

Reviewed by Peter Wright and Catherine Mc Donald

Revision History




Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
Rev 0.1	12-Aug-2010	First Draft Report	Adam Fearnley Associate Director	
Rev 1.1	21-Oct-2010	Second Draft Report	Adam Fearnley Associate Director	
Rev 2.1	29-Nov-2010	Final Report	Adam Fearnley Associate Director	

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List of Acronyms

AAPA	Aboriginal Areas Protection Authority
ABS	Australian Bureau of Statistics
ABSLMP	Australian Baseline Sea Level Monitoring Project
a.s.l	Above sea level
AR4	(IPCC) Fourth Assessment Report
BoM	Bureau of Meteorology
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DCCEE	Department of Climate Change and Energy Efficiency
IPCC	Intergovernmental Panel on Climate Change
LAPP	Local Adaptation Pathway Program
LGANT	Local Government Association of the Northern Territory
NT	Northern Territory
OAGCM	Ocean-atmosphere coupled general circulation models
PWC	Power and Water Corporation
SRES	Special report on emissions scenarios
SLR	Sea Level Rise
SST	Sea surface temperature
TAR	(IPCC) Third Assessment Report
AAPA	Aboriginal Areas Protection Authority

Key Terms

Adaptation	Actions taken in response to actual or projected climate change and impacts that lead to a reduction in risks or a realisation of benefits. A distinction can be made between a planned or anticipatory approach to adaptation (i.e. risk treatments) and an approach that relies on unplanned or reactive adjustments.
Adaptive capacity	The capacity of an organisation or system to moderate the risks of climate change, or to realise benefits, through changes in its characteristics or behaviour. Adaptive capacity can be an inherent property or it could have been developed as a result of previous policy, planning or design decisions of the organisation.
Climate change	Climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods (United Nations Framework Convention on Climate Change).
Climate scenario	A coherent, plausible but often simplified description of a possible future climate (simply, average weather). A climate scenario should not be viewed as a prediction of the future climate. Rather, it provides a means of understanding the potential impacts of climate change, and identifying the potential risks and opportunities created by an uncertain future climate.
Climatic vulnerability	Climatic vulnerability is defined by the International Panel on Climate Change (IPCC) as “the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity”.
Hazard	A physically defined source of potential harm, or a situation with a potential for causing harm, in terms of human injury; damage to health, property, the environment, and other things of value; or some combination of these.
Mitigation	A human intervention to actively reduce the production of greenhouse gas emissions (reducing energy consumption in transport, construction, at home, at work, etc.), or to remove the greenhouse gases from the atmosphere (sequestration).
Risk	Risk is defined in general terms as the product of the frequency (or likelihood) of a particular event and the consequence of that event, be it in terms of lives lost, financial cost and/or environmental impact.
Sensitivity	Refers to the degree to which a system is affected, either adversely or beneficially, by climate related variables including means, extremes and variability.
Vulnerability	Vulnerability is a function of risk and response capacity. It is a combination of the physical parameter of the hazards and its consequences such as personal injuries, degradation of buildings and infrastructure and functional perturbations. It may vary depending on non physical factors such as emergency preparation, education and recovery capacity.

Executive summary

This climate change risk assessment and adaptation planning report on the Wagait Shire Council area was commissioned by the Local Government Association of the Northern Territory with funding support from the Commonwealth Department of Climate Change and Energy Efficiency. This study provides an overview of climate change trends in the Wagait area, an analysis of expected climate change impacts and a number of proposed adaptation options. This project should not be considered as a one-off exercise but rather an ongoing process that needs to be revisited by the Wagait community and its Council from time to time.

The Vulnerability of the Wagait Shire

The Wagait Shire Council was previously known as the Cox Peninsula Community Government Council. The community lies 20 km south west of Darwin, across Darwin Harbour; however it is 130 km by road from Darwin and is considered a remote area.

The Wagait community is potentially exposed to extreme climatic events among which cyclones and flooding can be considered as the most threatening. All these elements make the community highly sensitive to climate change impacts.

However the Wagait community and the Wagait Shire Council have shown strong resilience in the face of previous adverse events. This resilience combined with the local knowledge held by the community can be built upon to prepare for the inevitable impacts of climate change.

Climate Change Observations & Projections

Wagait has experienced changes in the climate (such as air temperature and rainfall) over the past 30 years. These trends are likely to continue and even accelerate during the 21st Century.

Over the past 30 years the Wagait area experienced a warming of mean and maximum air temperature and a slight decrease of the minimum temperatures both during the wet and the dry seasons. The number of hot days (> 35°C) increased significantly during both seasons. Relative humidity decreased a little during the dry season but remained similar during the wet season compared to the current situation. Rainfall showed varying trends with a slightly wetter wet season and somewhat drier dry season.

The future climate change projections for the region include:

- Increased seasonal air temperature ranging from 0.7°C warmer (wet and dry season) by 2030 to between 1°C and 3.5°C warmer by 2070;
- Increased sea surface temperature by 0.7°C in 2030 which may reach 1.7°C by 2070;
- Although there is a high level of uncertainty, the projection of rainfall changes suggest that the driest seasons may become drier and the wet season may become slightly drier;
- A sea level rise of up to 1.1 m by 2100; and
- An increase in the intensity of cyclones (Category 4 and 5), but a decrease in the number of cyclones.

Key Vulnerabilities

Increased Damage to Coastal Areas

Increases in sea level, and the associated deterioration in coastal conditions from erosion of beaches are already important issues for the Wagait Shire Council. These problems could increase should climate change result in unforeseen changes in ocean circulation patterns and local currents.

Vulnerable Ecosystems & Biodiversity Loss

The Wagait area is home to valuable ecosystems and a number of species that are considered to be vulnerable to climate change. Climate change is expected to bring changes in terms of species distribution and migration, species abundance and vegetal productivity. Climate change is also likely to exacerbate impacts from introduced species (which are usually more opportunistic and tolerant than native species).

Risks to Buildings & Infrastructure

Buildings and infrastructure are identified as being sensitive to the effects of climate change. More intense tropical cyclones, more frequent and intense rainfall, changes in air temperature are likely to directly impact buildings and infrastructure (e.g. roads, electricity and water distribution) of the Wagait community and potentially increase repair and maintenance costs.

Implications for Culture and Traditions

Climate change is not likely to threaten the culture and traditions of the Wagait community; however, cultural values in Wagait can and will potentially influence local responses to climate and climate change as well as responses to mitigation and adaptation policies and strategies.

Risks to Human Health & Safety

Wagait Shire Council is located in the tropics and already experiences climatic conditions that are conducive to the transmission of tropical diseases such as malaria, dengue, food- and water-borne diseases and to the promotion of other climate-sensitive diseases such as diarrhoea, heat stress, skin diseases, acute respiratory infections and asthma. Whilst there has been no appreciable observed increase in these diseases to date, future climate projections suggest that proneness to these medical conditions in Wagait could increase. It is also likely that changes in the intensity of cyclones could have negative impacts on resident mortality and trauma rates in the short and medium term.

Cumulative Effects

The natural ecosystems are likely to be vulnerable to the harmful effects of climate change. It is also likely that changes to natural systems will have negative consequences for the Wagait community through loss of attractiveness. It is also possible that climate change will bring opportunities even if they are not identified at this point of time.

Uncertainties and Unexpected Events

It is possible that the Wagait Shire Council will also face a number of unforeseen changes in the physical climate system or ecological impacts that may not be anticipated, such as changes to individual species. Further research would improve the understanding of how to project against societal and ecosystem impacts, and provide the Wagait community with additional useful information about options for adaptation. However, it is likely that some aspects and impacts of climate change will be totally unanticipated as complex systems respond to ongoing climate change in unforeseeable ways. On the other hand, some changes may be positive and represent potential opportunities.

Adapting to Climate Change

A range of adaptation options has been identified. The Wagait Shire Council and the Wagait community both have a key role to play in this process.

Adapting to climate change involves preparing for, responding to and coping with climate induced changes. This is best achieved when government and community work together to improve the ability of communities to cope with or respond to the impacts of climate change. It is strongly recommended that a community-based approach be implemented to deal with climate change over the medium and long term.

A series of ten adaptation options ranging from climate change awareness programs to improvement of emergency management procedures and the incorporation of climate change considerations into procurement, have been identified. These options have been assessed using a set of criteria (e.g. cost, speed, effectiveness, etc.). This analysis provides supporting information for the Wagait Shire Council to select the most appropriate and most urgent options to be implemented.

A stronger awareness of the risks and ownership of the adaptation responses is required by the Council and community to build resilience to climate change impacts. To increase the effectiveness of raising awareness of climate change issues in these communities it is important to put a greater emphasis on "climate change champions" delivering the key messages to the community.

Priority Ranking	Prioritised Adaptation Options for Wagait Shire Council
1	<i>Develop and deliver a community education and awareness program to build community resilience. Option 1</i>
2	<i>Incorporate increased heat wave related illness into education provided by health services to the community. Option 2</i>
3	<i>Use procurement process to screen investment to address climate change risks to infrastructure and services. Option 3</i>
4	<i>Include climate change considerations in the upgrade, design and development of key community infrastructure. Option 4</i>
5	<i>Seek additional funding for additional upgrade of the drainage network. Option 5</i>
5'	<i>Engage in a dialogue with Power and Water Corporation to discuss potential relocation of the electrical sub-station and upgrade of the community supply water tank. Option 6</i>
6	<i>Identify potential engineering, land use or natural system planning response to sea level rise and increased storm surge heights. Option 7</i>
6'	<i>Prepare a Council position paper on climate change to engage in a dialogue and influence other institutions which have control over some risks and adaptation options. Option 8</i>

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Part 1 – Introduction



2.0 Introduction

2.1 Local Government and Climate Change

As the tier of Government most representative of, and most closely linked to Australian communities, the impacts of climate change will be most acutely felt by local governments. Australian Local Governments have been identified by the Commonwealth Government as being “at the forefront of managing the impacts of climate change” (LAPP, 2010) and as “key actors in adapting to the local impacts of climate change and the engagement of Local Government will be a critical part of any national reform agenda” (DCC, 2010). With some progression in the collective understanding and certainty of the impacts of climate change, the focus of local government action should now be on climate change adaptation.

A key responsibility for local government is the need to understand how climate change is likely to affect the operations, incomes, expenditure streams, strategic planning and assets of the council, and the community they support. Councils have finite resources, and this project will contribute to an understanding of how Wagait Shire Council can enhance resilience to the most urgent and threatening risks and impacts. The approach to adaptation should focus primarily on the high priority risks, with realistic actions building upon existing management and planning systems. Working with the community as a partner in adaptation process builds understanding of the issues and this in turn enhances community resilience.

2.2 Local Adaptation Pathway Program

The Commonwealth Government has focused its response to climate change around three pillars:

- Mitigating greenhouse gas emissions domestically;
- Helping to shape a global solution through international climate change negotiations; and
- Adapting to the unavoidable impacts of climate change.

Each of these themes has been and is increasingly informed by sound climate change science. As the risks that climate change poses have become clearer, the likely impacts more extreme, and the consequences more severe, the Commonwealth Government has developed increasingly robust programs and policies in response to this threat.

While much of the Australian community’s focus during the previous several years has been around the issue of setting targets to reduce greenhouse gas emissions, there has recently been a noticeable shift. There is increasing evidence that some impacts of climate change are unavoidable, no matter what target is set and there is an urgent need to prepare for these impacts. As a consequence, more efforts and resources have been devoted to climate change adaptation.

In recognition of this need to adapt, the Commonwealth Government has provided funding to local governments to undertake climate change risk assessments and develop action plans through the Local Adaptation Pathway Program (LAPP). Under Round 1 of the LAPP managed by the Department of Climate Change and Energy Efficiency (DCCEE), more than 60 local governments received funding for a total of 33 projects. Round 2 of the program provided a higher level of funding to reflect additional costs when working in remote and rural parts of Australia. Under Round 2 of the Local Adaptation Pathways Program, 30 councils in regional and remote areas of Australia received funding to undertake climate change risk assessment and adaptation action plans. This project has been funded as part of this Round 2.

2.3 Study Objectives

The Local Government Association of the Northern Territory (LGANT) engaged AECOM to conduct an assessment of the risks associated with the future impacts of climate change on Belyuen Shire Council, Coomalie Shire Council and Wagait Shire Council and the communities they support. This report presents the findings of this project for the Wagait Shire Council (refer hereafter as “Council”). The study focused on risks to the Shire’s assets and services. It has also considered the broader impact to the Wagait community.

This climate change risk assessment for the Council is the first step in the process of building an adaptation strategy for the Wagait community.

2.3.1 Purpose of the Study

The purpose of this study is to research, identify, evaluate, prioritise and report on the future impacts of climate change for Wagait. In this context the study seeks to:

- Evaluate key climatic vulnerabilities of the Council, in the context of other changes in the built, natural and social environments;
- Explore potential measures and options to adapt to climate change; and
- Identify the highest priority uncertainties about which we must know more to be able to respond to climate change in the future.

2.3.2 Scope of the Study

The scope of this risk assessment study includes:

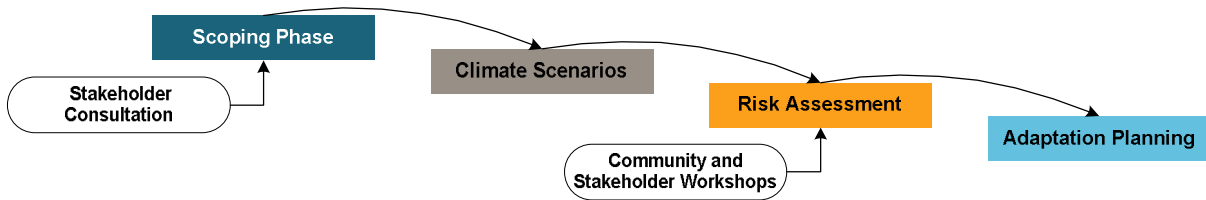
1. The collection of relevant data pertaining to physical and biological characteristics of the region, and notably an evaluation of the known impacts of: sea level rise, storm surge, cyclonic activity and sea surface temperature rise.
2. The documentation and analysis of the latest climate change projections for two future times (2030 and 2070), including projections for: air temperature, rainfall, sea level rise, storm surge, cyclonic activity and sea surface temperature.
3. The development of a risk analysis of the potential impacts to the Wagait Shire Council's core assets and services.
4. The development of a risk analysis of the potential impacts to the Wagait community.
5. The drafting of options toward an adaptation strategy.

2.4 Approach and Methodology

2.4.1 Overall Approach

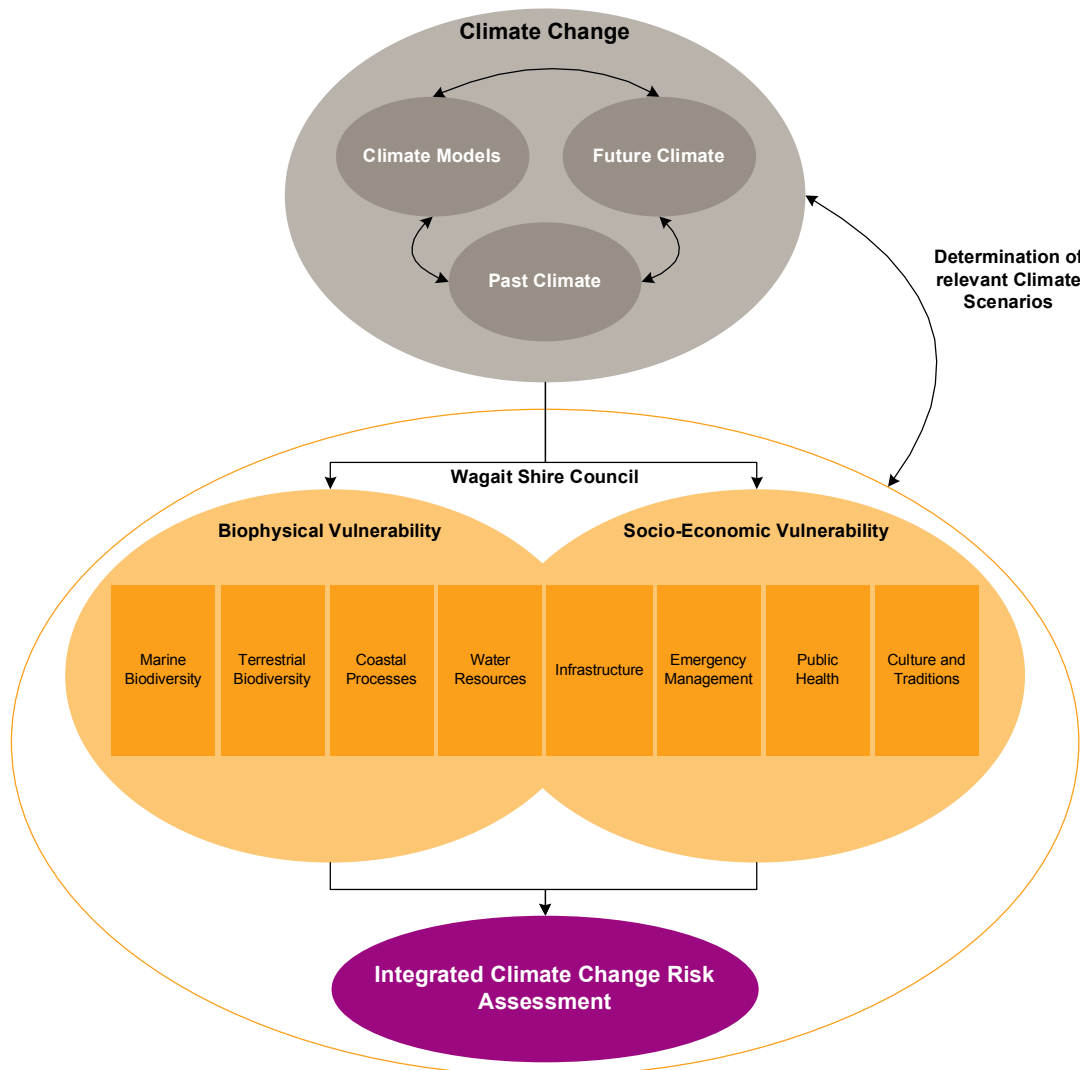
As outlined in Figure 1, the project has been developed around the following key phases: scoping phase, determination of climate trends in the studied region, climate change risk assessment (including community and stakeholders' risk workshops) and adaptation planning.

Figure 1 – Key phases of the project



The methodology adopted involved a blend of the approach recommended by the Australian Greenhouse Office 2007 report “*Climate Change and Risk Management: A Guide for Business and Government*” with a consideration of key tools proposed in the international climate change literature with respect to impact assessment. The risk assessment combined past and future climate change information at different scales (Global→Regional→Local) with assessments of climate change risks and impacts on the community, natural and built environments. Figure 2 highlights the integrated assessment approach.

Figure 2 – The integrated climate change risk assessment



2.4.2 Workshops

As part of this study a workshop was held with members of Wagait’s community and Council. The elected president of the Council participated in the workshop.

The workshop was an important activity to explore key climate trends relevant for the region and to allow participants to discuss the implications of climate change and associated impacts on the community, local services, assets and natural environment. The participants suggested several adaptation responses to the risks and impacts they had identified in the workshop process. A visual tool was used to assist the participants of the workshop to initially indicate the magnitude of the risk/threat and the existing controls and influence they have over these risks/threats. More details on the workshop and the tools used are provided in Section 8.0.

2.4.3 Impacts and Vulnerability Assessment

Climate change risk is analysed as a function of the consequences associated with the risk occurring, the likelihood of the risk occurring, and the effectiveness of the control systems in place to address the risk. The risks and impacts were assigned likelihood and consequence ratings from 1 to 5 (1 being low and 5 being high) to create a combined rating out of 25. Table 1 provides a generic overview of the consequence levels. These levels represent the degree or level of consequences to which the natural system or human settlements are likely to be exposed if a given climate change impact occurs. Table 2 provides a generic overview of the likelihoods of recurrent risks and single events. No scoring was assigned to the control aspects of the risk. The workshop helped inform the ratings applied to the final risk assessment.

Table 1 – Qualitative measures of consequences

Level	Descriptor	Infrastructure	Community	Environment
1	Insignificant	No infrastructure damage.	No adverse human health effects or complaint.	No environmental damage.
2	Minor	Localised infrastructure service disruption. No permanent damage. Some minor restoration work required. Early renewal of infrastructure by 5-10%.	Slightly adverse human health effects. Isolated but noticeable increased decline in social cohesion (e.g. conflict over resources).	Minor instances of environmental damage that could be reversed. I.e. negative impact on a specific species.
3	Moderate	Widespread infrastructure damage and loss of service. Damage recoverable by maintenance and minor repair. Partial loss of local infrastructure. Early Renewal of Infrastructure by 10-20%.	Frequent disruptions to employees, customers or neighbours. Adverse human health effects. Minor public debate. General appreciable decline in social cohesion.	Isolated but significant instances of environmental damage that might be reversed with intense efforts.
4	Major	Extensive infrastructure damage requiring extensive repair. Permanent loss of local infrastructure services, e.g. airstrip. Early renewal of Infrastructure by 20-50%.	Permanent physical injuries and fatalities may occur from an individual event. Significant public debate about climate change, constrained resources and services. Severe and widespread decline in services and quality of life within the community.	Severe loss of environmental amenities and a danger of continuing environmental damage.
5	Catastrophic	Permanent damage and/or loss of infrastructure service across state. Retreat of infrastructure. Support and translocation of residential and commercial development.	Severe adverse human health effects – leading to multiple events of total disability or fatalities. Emergency response. Public outrage.	Major widespread loss of environmental amenity and progressive irrecoverable environmental damage.

Table 2 – Qualitative measures of likelihoods

Level	Descriptor	Recurrent risks	Single events
5	Maybe several times every year	Could occur several times per year	More likely than not / Probability greater than 50%
4	Maybe once every year	May arise about once per year	As likely as not / 50/50 chance
3	Maybe a couple of time in a generation	May arise once in 10 years	Less likely than not but still appreciable / Probability less than 50% but still quite high
2	Maybe once in a generation	May arise once in 10 years to 25 years	Unlikely but not negligible / Probability low but noticeably greater than zero
1	Maybe once in a lifetime	Unlikely during the next 25 years	Negligible / Probability very low, close to zero

The combination of the consequence and likelihood has been discussed during the workshop. Table 3 provides a generic overview of the risk ranking. A detailed analysis of the risks is presented in Section 8.0.

Table 3 – Risk rating matrix

		Consequences				
		Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Likelihood	Almost certain (5)	Medium (5)	Medium (10)	High (15)	Extreme (20)	Extreme (25)
	Likely (4)	Low (4)	Medium (8)	High (12)	High (16)	Extreme (20)
	Possible (3)	Low (3)	Medium (6)	Medium (9)	High (12)	High (15)
	Unlikely (2)	Low (2)	Low (4)	Medium (6)	Medium (8)	Medium (10)
	Rare (1)	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)

2.4.4 Adaptation Options

A range of adaptation options were developed to address one or several climate change risks identified during the earlier stages. Some of the adaptation responses were identified in the Council workshop.

AECOM used the analytic framework below to analyse and compare the different adaptation options that could be implemented to address key climate change risks. This framework can assist the Council in prioritising adaptation options and revising this scoring as frequently as necessary.

Table 4 – Indicative adaptation options analytic framework

	High	Medium	Low
Effectiveness	High potential to reduce risk	Moderate potential to reduce risk	Potential to reduce risk is low or uncertain
Cost	No additional budget is required / Low costs	Additional budget is required but can be covered by Council's budget / Medium costs	Additional budget is required and involves complementary external funding / High costs
Speed	Can be completed within the next 12 months	Can be completed in the medium term (1-3 years)	Long term actions (3+ years)
Technical Feasibility	Proven adaptation approach / Widespread technical skills	Limited application of adaptation approach to date / Moderately available technical skills	Adaptation approach not applied to date / Niche and rare technical skills
	High	Medium	Low

Human Capability	Capability exists within Councils	Some external expertise or support is required	Delivery is dependent on external expertise
Consistency with Council Policy	Adaptation option fits with existing Councils' planning and policy	Adaptation option could fit with existing Councils' planning and policy	Adaptation option would require new Councils' planning and policy
Community Acceptance	Potentially no conflict with communities for implementation	Possible conflict with communities for implementation	Likely conflict with communities for implementation

2.5 Limits of this Study

This study presented a number of challenges, some of which have been partially overcome, due to the unique natural environment and socio-economic characteristics of the area. However a number of limits remain and should be considered when reading this report.

2.5.1 Climate Observations and Projections

There is a limited number of functioning weather monitoring stations across the Top End and some do not continuously monitor weather variables. As a result the data set sourced from the Bureau of Meteorology presented significant gaps preventing the identification of trends for some variables or even all variables for certain locations. More details on the weather monitoring stations and gaps in the data set are provided in Appendix A.

Additionally the numerical models used to generate climate projections tend to provide climate projections in a four temperate seasons format. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) has generously generated some climate variables in a two seasons (wet and dry) tropical climate format. However, some variables could not be generated in this format and have not been used as part of this study.

Finally, it should not be forgotten that climate models provide an indication of what the future climate might be like with higher concentration of greenhouse gas in the atmosphere. There are, and will always be, uncertainties associated with climate projections and emission scenarios. Therefore future climate scenarios presented in this study should be considered as possible, rather than certain futures.

2.5.2 Stakeholder Consultation and Access to the Community

A study such as this one should ideally complement the theoretical, scientific and technical understanding of the biophysical and socio-economic environment with the pool of local knowledge. However there are many barriers to an extensive and exhaustive stakeholder and community consultation in Top End communities.

2.5.3 Risk Management and Climate Change Awareness

Climate change awareness in the community was moderate. There was an interest in climate change issues with a very basic understanding of the causes and consequences of the problem and even sometimes some confusion.

Identifying the risks and potential adaptation responses to reduce these risks is only the first stage. Stronger awareness of the risks and ownership of the adaptation responses is required by the Council and community to build resilience to these climate change related impacts.

3.0 Local Government in the Northern Territory and Wagait Shire

3.1 Local Government in the Northern Territory and Related Issues

3.1.1 Local Government Reform

In October 2006, the Northern Territory (NT) Minister for Local Government announced a new direction in Government Policy with the establishment of a new framework for local government based on a system of municipal and shire councils. Local government reforms, and the introduction of a new Local Government Act, came into effect on 1 July 2008. Community government councils and associations were replaced by shires.

These reforms aim to strengthen leadership and governance in the local government sector, particularly in regional and remote areas. This includes improving the provision of services and increasing levels of indigenous employment in the local government sector.

3.1.2 Land Tenure

In 1976 the *Aboriginal Land Rights (Northern Territory) Act* was passed and recognised the rights of Aboriginals Australians to their land and set up processes to reacquire traditional lands through Land Councils, and manage land resources. The *Native Title Act 1993* was preceded by the Mabo decision delivered by the High Court of Australia in 1992. The decision stated that under Australian law Indigenous people have rights to land. This right is native title (NLC, 2010).

The administration of services on aboriginal land is divided between Land Councils and Shire Councils. Shire councils are responsible for delivering basic services and amenities to assist people in their daily living. Shire councils operating on Aboriginal land have no legal interest in the land, or control over its development, these rights belong to groups of aboriginal landowners. Land Councils make decisions about land use to protect the interests of Aboriginal land owners, as set out by section 23 of the *Aboriginal Land Rights (Northern Territory) Act 1976* (NLC, 2010).

3.1.3 Sacred Sites

Aboriginal Sacred Sites are located throughout the Northern Territory. Sacred sites are places within the landscape that have a special significance under Aboriginal tradition. The primary Commonwealth legislation that protects Indigenous heritage is the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*. This Act aims to preserve and protect areas and objects that are of particular significance to Aboriginals in accordance with Aboriginal tradition (AECOM, 2009).

The Aboriginal Areas Protection Authority (AAPA) was established under this Act. AAPA holds both a register of Authority Certificates and a register of Sacred Sites. Under the *Northern Territory Aboriginal Sacred Sites Act* all sacred sites in the Territory are protected regardless of whether or not they are registered (AAPA, 2010).

3.2 Wagait

The Wagait Shire Council was previously known as the Cox Peninsula Community Government Council. Wagait Beach Township is located on the Cox Peninsula road in the Darwin Daly region, west of Darwin. The beach was named after the Wagait Tower, which was built during World War II overlooking the beach. The tower was destroyed by Cyclone Tracy.

3.2.1 Natural Environment

Wagait Shire is located within the Darwin Coastal bioregion. The Darwin coastal bioregion is generally flat, low-lying country, drained by several large rivers (DEWHA, 2008). The region contains substantial areas of mangroves, rainforest and other riparian vegetation fringing the rivers. Inland from the coast typical vegetation communities include eucalypt forest and woodlands, dominated by Darwin Stringybark (*Eucalyptus tetradonta*) and Darwin woollybutt (*Eucalyptus miniata*), with tussock and hummock grass understorey. The most remarkable feature of this region is the extensive and diverse floodplain environments associated with the lower reaches of several large river systems (NRETAS, 2007).

Hydrology

The Darwin coastal bioregion includes several nationally important wetlands, including RAMSAR listed wetlands of Kakadu and the Coburg Peninsula. Wagait Shire is located within the nationally listed wetland (Directory of Important Wetlands in Australia) of Port Darwin, which comprises the entire Darwin Harbour. Darwin Harbour is a large embayment consisting of three main arms: East Arm, Middle Arm and West Arm. Wagait Shire is located near the West Arm region. Darwin Harbour supports a range of freshwater, marine and terrestrial environments including large areas of tidal mudflats and an extensive and diverse area of mangroves (NRETA, 2005).

Flora and Fauna

The Darwin coastal bioregion has high biodiversity values with 330 bird, 82 mammal and 135 reptile species recorded in the region, as well as 2200 plant taxa (DEWHA, 2007). The region is particularly rich in threatened species, with 33 listed species present. This includes several plant species associated with seasonally moist sand sheets east of Darwin. Threatened fauna include several marine turtles, many of which nest within the bioregion. There is some evidence of a decline in populations of some groups of mammals and birds within the bioregion (NRETAS, 2007).

Threatening Processes

Feral species known to occur within the Darwin Coastal bioregion include cane toad (*Bufo marinus*), dog (*canis* spp.), pig (*Sus scrofa*), cat (*Felis catus*), horse (*Equus caballus*) and buffalo (*Bubalus bubalis*). Weed infestations are a major regional issue within the Darwin Coastal bioregion, particularly *Mimosa pigra*. The spread and dominance of gamba grass (*Andropogon gayanus*) and mission grass (*Pennisetum polystachion*) in the understorey of eucalypt forests also pose a problem and are believed to increase the frequency of hot late dry season fires (NRETAS, 2007).

3.2.2 Socio Economic Environment

Data from the Australian Bureau of Statistics (ABS) have been used to characterise the socio-economic environment of Wagait. These data were collected during the 2006 census.

Demographics

The 2006 Census revealed that 6.8% of the population in Wagait Beach is Indigenous, compared with the national rate of 2.3%. The population is relatively old with 11.9% of the population being aged between 0-14 years and 36.5% aged 55 years and over. The median age of people in Wagait Beach was 48 years, significantly higher than the national median of 37 years (ABS, 2006).

Housing

In the 2006 Census 136 occupied private dwellings were recorded in Wagait Beach. Of these 83.1% were separate houses and 16.9% were classified as other dwellings (ABS, 2006).

Economy

The 2006 Census recorded 156 people aged 15 years or over who were in the labour force. This compares with 75 people not in the labour force. Of those within the labour force 60.3% were employed full-time, 30.8% were part-time and 4.5% were unemployed.

The most commonly recorded occupation was Professional which accounted for 20.1% of workers, while Technical and Trades accounted for 19.5%, Clerical and Administrative 18.1% and Labourers 12.8%. State Government was recorded as the highest industry of employment accounting with 10.7% of employed people. School Education employed 10.1% of workers and Supermarket and Grocery Stores recorded 7.4% (ABS, 2006).

The median weekly income for people in Wagait Beach was recorded at \$572, higher than the national figure of \$466. The median weekly family income was \$1,179, similar to the national figure of \$1,171 (ABS, 2006).

The area governed by the Wagait Shire Council is approximately 562 km² and the average estimated population is 400. The Wagait Shire Council has seven elected members. There are no separate wards within the Wagait Shire. The Shire Council head office is located in Wagait Beach.

Table 5: Wagait Shire Council Overview

Shire Service Delivery Centre	Councillors
Wagait Beach	Peter Clee
	Karen Duncan
	Darryl Withnall
	Trish McIntyre
	Rocky Magnoli
	Vera Lamont
	Matt Prouse

3.2.3 Wagait Shire Council Services

Wagait Shire Core Services

Core Services are services that all Shire Councils are required to deliver to communities with the implementation of the Local Government Act (2008). Table 18 presents the core services provided by the Wagait Shire Council.

Table 6: Wagait Core Services

Core services	Comments
Local Infrastructure	
Maintenance and upgrade of parks, Reserves and Open Spaces	Council has plans to develop a memorial garden.
Maintenance and Upgrade of Buildings, Facilities and Fixed Assets	
Management of Cemeteries	There is no cemetery in Wagait.
Lighting for Public Safety, including Street Lighting	There are no street lights.
Local Road Upgrading and Construction	Council has plans to duplicate the Wagait Tower Road carriageway adjacent to the shop to provide safer movement of traffic
Local Road Maintenance	The Council is responsible for the care and maintenance of the drainage network adjacent to roads.
Fleet, Plant and Equipment Maintenance	
Natural and cultural resource management services	

Core services	Comments
Local Environment Health	
Waste Management (including litter reduction)	<p>The Council Rubbish Tip is located on the Cox Peninsula Road on the outskirts of Wagait Beach</p> <p>There is no household rubbish collection and residents dispose of their own rubbish at the tip</p> <p>The Council is in the process arranging a recycling collection point at the Tip. Signage is being prepared to direct people where to dump various types of refuse. The Dump site will be laid out with areas for:</p> <ul style="list-style-type: none"> Recycled Aluminium cans, Glass, plastic, batteries, tyres, gas bottles Trees and Garden waste Household refuse Hard waste, car bodies, fridges etc. Oil <p>There is no charge for depositing refuse at the Tip</p>
Weeds Control and Fire Hazard Reduction in and around community areas	
Companion Animal Welfare and Control	<p>The Council does not have any by laws for the control of domestic animals. Registration is not required.</p> <p>The Council holds a Corporate Firearms Licence that authorises Council employees to discharge firearms to destroy dangerous, feral or sick animals.</p>
Local Civic Services	
Library and Cultural Heritage Services Civic Events	<p>The Council offers a limited library service from the Council Office</p> <p>Books are provided by the Darwin Library Service</p> <p>The collection will be added to each year and it is Council's intention to eventually become part of a library service that will be able to offer access to a wider collection and other activities undertaken at conventional libraries</p> <p>The Wagait Beach Community Centre is a purpose built building that provides accommodation for a Medical Clinic, Emergency Services Communications Centre, Cyclone Shelter, Public Meetings, Training Sessions, Seniors Program, Film Nights and meeting place for any organization requiring accommodation</p>
Local Emergency Services	<p>A Medical Clinic is located within the Wagait Beach Community Centre. Basic and emergency care is provided by highly qualified nurses from Belyuen. Monitoring of blood pressure, diabetes, blood tests and caring for wounds are some of the more common procedures undertaken</p> <p>The Council has contributed approximately \$80,000 to ensure that up to date equipment is available</p> <p>The Council is currently in the process of negotiating an extended service and possibility of attracting a doctor to provide a service on a part time basis</p>

Wagait Shire Commercial Services

Commercial Services are services that the Council is undertaking on a full commercial basis with the intention of using profits from commercial activities to improve services to the community. Table 19 presents the commercial services provided by the Council.

Table 7: Wagait Shire Commercial Services

Commercial services	Information/Notes/issues
Housing and Infrastructure Maintenance	None
Non Council roads	None
Post office agency	None
Power, water and sewerage	None
Motor vehicle registration	None

Wagait Agency Services

Agency Services include services that the Council has agreed to deliver on behalf of other Government Agencies on a fee for service basis.

Table 8: Wagait Shire Agency Services

Agency services	Information/Notes/issues
Airstrips	None
Community safety	None
Economic development support	None
Employment and training	None
Family (including child care)	None
Aged and disabled care	A Seniors Program is conducted at the Wagait Beach Community Centre each Tuesday morning.
Outstation/homeland municipal	None
Sport and recreation	The Council employs a part time Recreation Officer for 20 hours per week Recreational activities take place at the sportsground and local beaches of an evening and on weekends. Activities include basketball, cricket, football, rugby, soccer, archery, hockey and other passive sports. In addition special events are also organised including film nights and table tennis tournaments. There is some concern in the community that there needs to be another adult at spots grounds to lend support. Adult volunteers are required. Council is seeking funding to provide a grassed oval at the sportsground
Community Media	None
Environmental Health	None
Arts and Culture	None

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Part 2 – Climate Change in Wagait



4.0 Climate Change: Context

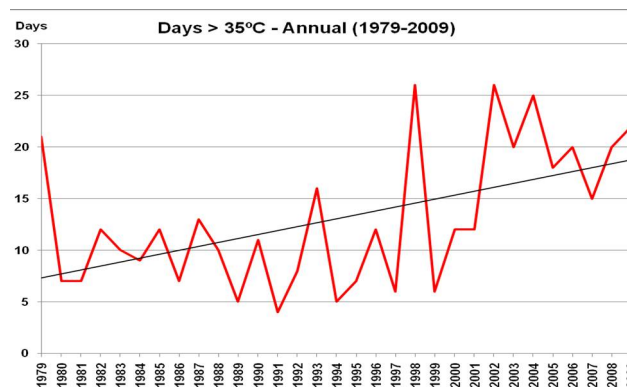
Climate change is a global phenomenon which impacts locally. The Intergovernmental Panel on Climate Change (IPCC) has evaluated evidence of climate change occurring and its consequences over the past 20 years. Worldwide industrial development since the first industrial revolution in the 18th century has caused greenhouse gases to be released into the atmosphere in great volumes. Current climate change has been caused by greenhouse gases, some of which are released by burning fossil fuels such as coal and oil, which enhance the natural greenhouse effect on the planet. Major land use changes and some natural climate variability have also contributed to the recent changes in climate conditions in Australia. Even if greenhouse gases released in the atmosphere are dramatically reduced, the warming trend will continue to rise throughout the century; this is due to the inertia of the climate system. To adapt to climate change, it is necessary to understand how our climate is changing.

4.1 Understanding Past and Future Climate Change

Climate observations are obtained through networks of meteorological monitoring stations. Precise and consistent measurements are generally only available for the second half of the 20th century.

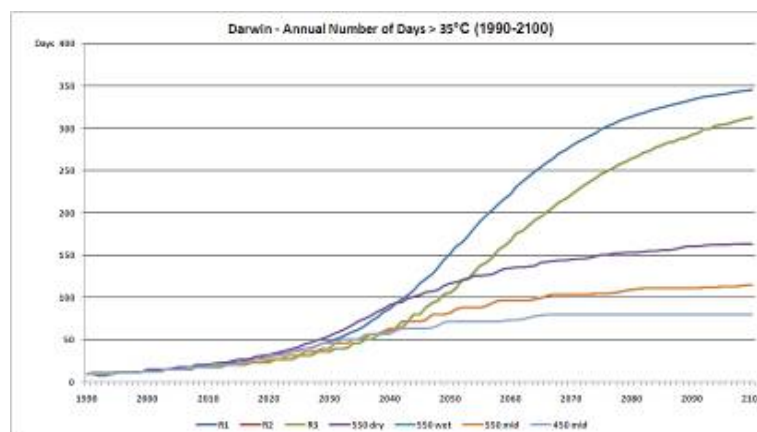
Figure 3 shows how the historical climate (annual number of days > 35°C in this instance) of the past 30 years has trended up until now.

Figure 3 – Observed trend in the annual number of days > 35°C at the Darwin airport (BoM 2010)



Climate models are used to provide an indication of the potential future climate conditions, based on a range of greenhouse gas emission scenarios. The hypotheses used to estimate how the climate system might be impacted by climate change are subject to uncertainty due to the complexity of the climate system. The climate models that simulate or replicate the past climate conditions the best for this region have been selected to inform future climate change for the region. It should be noted that even if information is uncertain it is still very valuable. Figure 4 shows how climate models information is providing a likely projection of future climate (annual number of days > 35°C until 2100).

Figure 4 – Future trends in the annual number of days > 35°C for Darwin (AECOM 2008)

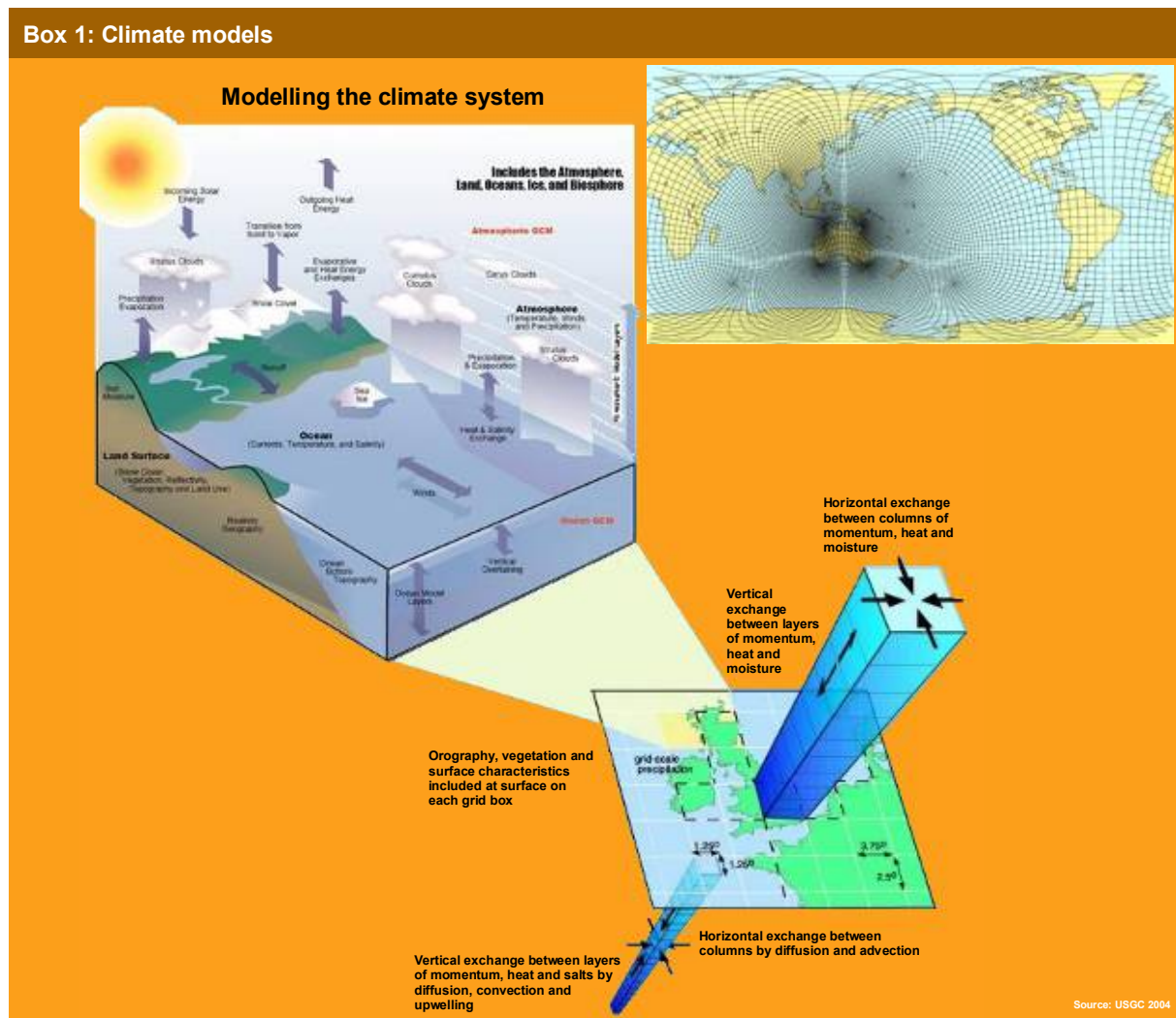


4.2 Emission Scenarios

Emission scenarios are estimations of future quantities of greenhouse gases that may be released into the atmosphere. They are based on assumptions about future demographics, the implementation and efficiency of energy policies. The IPCC developed emissions scenarios in 1990, 1992 and 2000 (released as Special Report on Emission Scenarios, SRES). The SRES are used as input data for climate models. Emissions scenarios selected for use in the climate models to provide the projections of the future climate were A1B for the year 2030; then a range for the year 2070 using B1 as a lower range and A1FI as an upper range. A range for 2070 is required because it is 60 years in the future where technology, population and energy use could be considerably different to today and therefore using a range deals with this greater uncertainty better. More detail regarding the emissions scenarios and what future they represent is provided in Appendix A.

4.3 Climate Models

The climate models are currently the best available tools to estimate what the future climate may be with increased concentration of greenhouse gases in the atmosphere. These are a simplified version of the physical and chemical processes driving our climate system through equation ensembles in a grid system covering the Earth (the grid has usually 200 km of net size). Very often, they combine the processes taking place over the continent, the ocean and the existing relation between the large land and water masses. The emission scenarios are used as inputs data for the climate models. An illustration of a climate model is provided in Box 1.

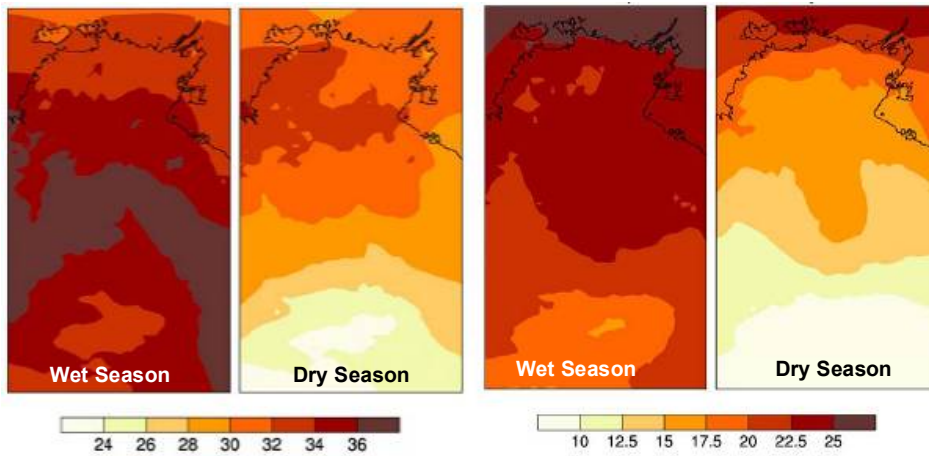


5.0 Current Climate and Climate Change

5.1 Current Climate in the Northern Territory

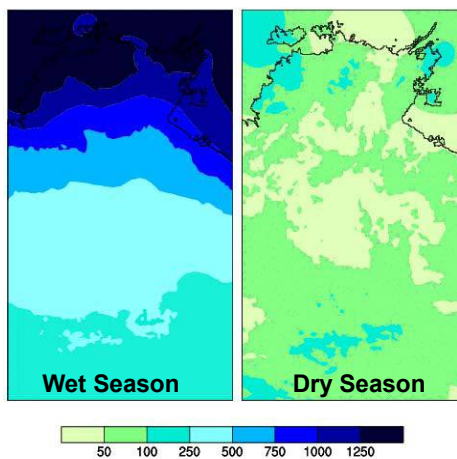
The Top End presents a tropical climate with high humidity and two distinct seasons: a wet season from November to April and a dry season from May to October. The wet season is influenced by the summer monsoon with thunderstorms and cyclones. El Niño¹ tends to limit or even suppress monsoon effect and cyclones while La Niña tends to exacerbate tropical cyclone activity and the monsoon effects. The Northern Territory experiences a warm climate with maximum temperatures higher in the south during the wet season and in the north during the dry season. Minimum temperatures are higher in the north than in the south during both seasons (see Figure 5).

Figure 5 – Maximum temperature (in °C, left) and minimum temperature (in °C, right) over the 1961-1990 period (CSIRO 2004)



From May to October, most of the Northern Territory (with the exception of the south and some areas in the far east and far west of the Top End) experiences very little rain. The wet season is much warmer and humid and this is when most precipitation occurs (see Figure 6)

Figure 6 – Rainfall (mm) averaged over the wet and dry seasons from 1961-1990 (CSIRO 2004)



¹ El Niño/La Niña-Southern Oscillation is a climate pattern occurring every 5 years on average over the tropical Pacific Ocean and influencing local climate in many regions of the World. El Niño corresponds to the warming phase and La Niña to the cooling phase of the oscillation.

Figure 7 – Current climate in the Northern Territory Top End region

This map highlights the spatial variation of the current climate across the NT Top End. The mean annual minimum/maximum temperature and rainfall are shown for 15 weather monitoring stations.




5.2 Current Climate in Wagait

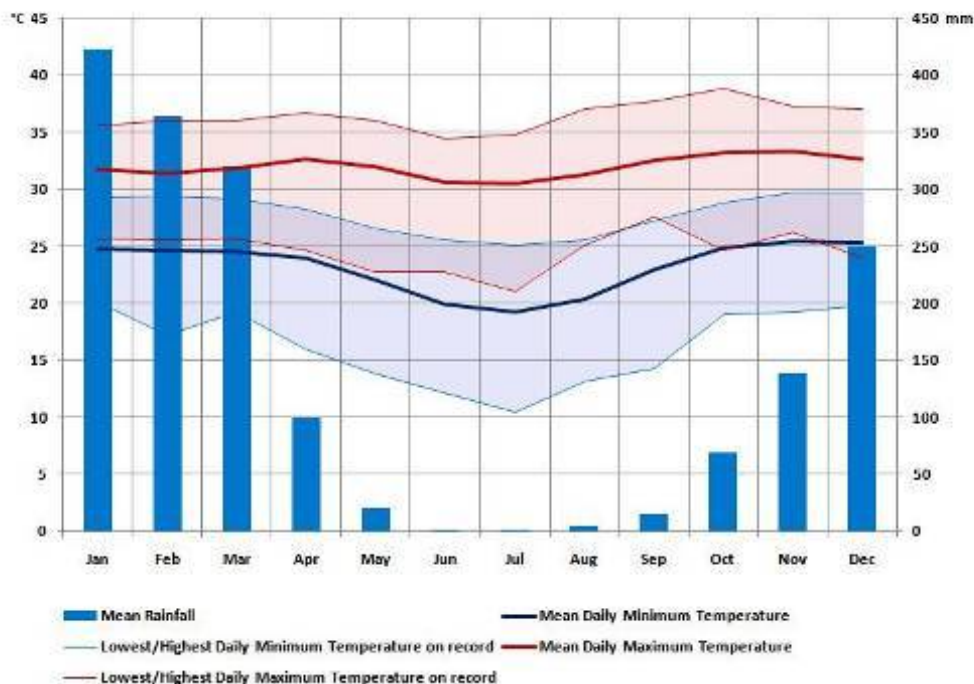
There is no Bureau of Meteorology weather station within the boundaries of the Wagait Shire Council. The closest station is located at Darwin Airport. Therefore the analysis has been based on the Darwin Airport station (12°42'S, 130°89'E / 30 m a.s.l. / 1941-2010). Data from this station are considered to be representative of climatic conditions experienced in the study area. On such short distance, the only factors likely to alter climate conditions are orography (altitude and slopes) for precipitation pattern and heat island effects for air temperature. Neither the studied area nor the weather station is likely to be subject to these effects. The main features of Darwin Airport weather conditions are summarised below (see also Table 9):

- Air temperature exhibit little seasonal variations, with mean maximum temperatures ranging between 33.3°C in November and 30.5°C in July while mean minimum temperatures range between 19.2°C in July and 25.4°C in November.
- Rainfall records show the annual mean rainfall to be around 1,715 mm per year. The mean minimum monthly rainfall is recorded between June and August (1.3 to 5.2 mm) and the maximum mean monthly rainfall is recorded in March (423 mm). The highest daily rainfall monitored in the region occurred in January 1997 with 513 mm over a 24 hour period.

Table 9 – Darwin Airport key climate data (Statistic figures were rounded to the closets number, BoM 2010)

		Darwin Airport (1941-2010)
	Annual mean minimum temperature	23.2°C
	Annual mean maximum temperature	32°C
	Mean number of days > 30°C	317 days
	Mean number of days > 35°C	10 days
	Mean number of days > 40°C	0 day
	Mean annual rainfall	1,715 mm
	Lowest mean annual rainfall (1951)	1,024 mm
	Highest mean annual rainfall (1998)	2,777 mm
	Highest daily rainfall (03/01/1997)	290 mm

Darwin Airport



6.0 Wagait Climate Change Snapshot

The table below provides an overview of key climate trends for the region. More information on climate change can be found in Appendix A and Appendix B.

Climate Change Variable	Observed Trend (1979-2009)	Projections 2030	Projections 2070
Mean Temperature	↗ Warming of 0.5°C	↗ Projected warming of 0.8°C ↗ Projected warming of 0.8°C	↗↗ Projected warming between 0.8°C and 3.5°C ↗↗ Projected warming between 0.8°C and 3.5°C
Min Temperature	↘ Decrease during the dry ↘ Slight decrease during the dry	↗ Projected warming of 0.8°C	↗↗ Projected warming between 0.8°C and 3.7°C
Max Temperature	↗ Slight increase during the dry ↗ Slight increase during the dry	↗ Projected warming of 0.8°C	↗↗ Projected warming between 0.8°C and 3.2°C
Days > 35°C	↗ Increase during the dry ↗ Increase during the dry	↗ Projected increase to between 20 and 50 days per year	↗↗ Projected increase to between 70 and 280 days per year
Precipitation	↘ Slight decrease during the dry ↗ Slight increase during the wet	↘ Decrease during the dry ↘ Slight decrease during the wet	↘ Decrease during the dry ↘ Slight decrease during the wet
Sea surface temperature	↗ Sea surface temp has increased in region. No local data available.	↗ The annual SST may increase by 0.7°C in 2030	↗↗ The annual SST may increase by 1.7°C in 2070
Sea level rise	↗ Sea level rose by 7.5 mm/year since 1993, resulting in a 12 cm rise	↗ Sea level rise should continue to rise	↗↗ Sea level rise should continue to rise. A worst case scenario value of + 1.1 m by 2100.
Cyclones	↘ Decrease in the overall number of cyclones	↗↗ Increase in intensity of cyclones ↘ Decrease in the overall number of cyclones	↗↗ Increase in intensity of cyclones ↘ Decrease in the overall number of cyclones
Storm surge	↗↗ As mean sea level is rising, it is expected that storm surge height also increase leading to a change in the frequency of some return period events. For instance a 1 in 100 year's storm surge could become a 1 in 10 year's storm surge.		
Ocean current	↘ Reduction in the strength of the Indonesian Throughflow Current ²	↘ This trend should continue in the future. No quantitative projections	↘ This trend should continue in the future. No quantitative projections.
Relative humidity	↘ Slight decrease during the dry season = No changes during the wet season	↘ High uncertainties in the projections. Slight decrease during the dry and the wet season	↘ High uncertainties in the projections. Slight decrease during the dry and the wet season

↗ or ↗↗ Slight or major annual increase

↗ or ↗↗ Slight or major dry season increase

↗ or ↗↗ Slight or major wet season increase

↘ or ↘↘ Slight or major annual decrease

↘ or ↘↘ Slight or major dry season decrease

↘ or ↘↘ Slight or major wet season decrease

² The Indonesian Throughflow is an ocean current that transports water between the Pacific Ocean and the Indian Ocean through the Indonesian Archipelago.

6.1 Temperature, Rainfall and Humidity Changes during the Wet Season

Over the last 30 years the wet season has tended to become warmer, with more hot days ($>35^{\circ}\text{C}$), slightly more rainfall while the relative humidity showed little change. In the future, temperature should continue to rise as will the number of hot days and possibly very hot days.

The A1FI greenhouse emissions scenario which is the worst case scenario, the temperature during the wet would increase by about 3.5°C by 2070. Most models show a rainfall decrease during the wet. The magnitude of this decrease varies between the models and the different timeframes. Most models show little change in rainfall for the near future (2030) with only a few percent decreases. The worst case emissions scenario (A1FI) for 2070 indicates a decrease of up to 25% for rainfall in the wet season which is a decrease of about 430 mm per year.

With regards to relative humidity, there has been very little change over the last 30 years and there should be a slight decrease in humidity during the wet season for the near (2030) and far (2070) future.

6.2 Temperature, Rainfall and Humidity Changes during the Dry Season

Overall the dry season over the last 30 years tended to become warmer, with more hot days ($>35^{\circ}\text{C}$) with slightly less rainfall. In the future, temperature should continue to rise as will the number of hot days and possibly very hot days.

The A1FI greenhouse emissions scenario which is the worst case scenario, the temperature during the dry would increase by about 3.4°C by 2070. Most models show a rainfall decrease during the dry. The magnitude of this decrease varies between the models and the different timeframes. Most models show limited change in rainfall for the near future (2030) with up to 10%. The worst case emissions scenario (A1FI) for 2070 indicates a decrease of up to around 40% for rainfall in the dry season which would reduce the rainfall from 1,715 mm to around 1,030 mm.

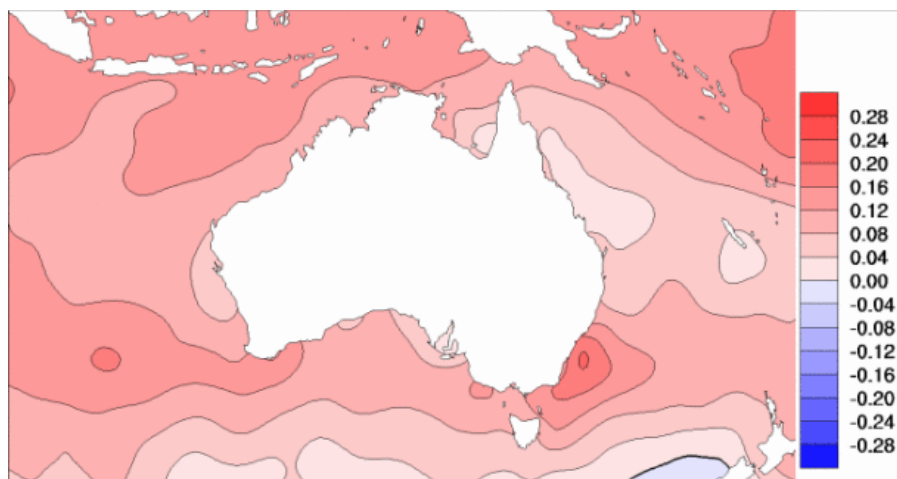
With regards to relative humidity, there has been a limited decrease over the last 30 years and there should be a slight decrease in the dry season for the near (2030) and far (2070) future.

6.3 Sea Surface Temperature

The Sea Surface Temperature (SST) is defined as the water temperature at one metre below the surface. A warmer SST can potentially increase the chance of a cyclone occurring, induce coral bleaching events and have consequences on oceanic currents or distribution of fishing resources.

Based on the BoM map (see Figure 8), SST has slightly increased over the past 40 years (between $+0.16^{\circ}\text{C}$ and $+0.32^{\circ}\text{C}$). Projections for SST show a warming of approximately 0.7°C by 2030 and 1.7°C by 2070 (DCCEE 2010).

Figure 8 – Trend in annual mean of sea surface temperature 1970/2008 ($^{\circ}\text{C}/10$ years, BoM 2009)



6.4 Sea Level Rise

Sea Level Rise Observations

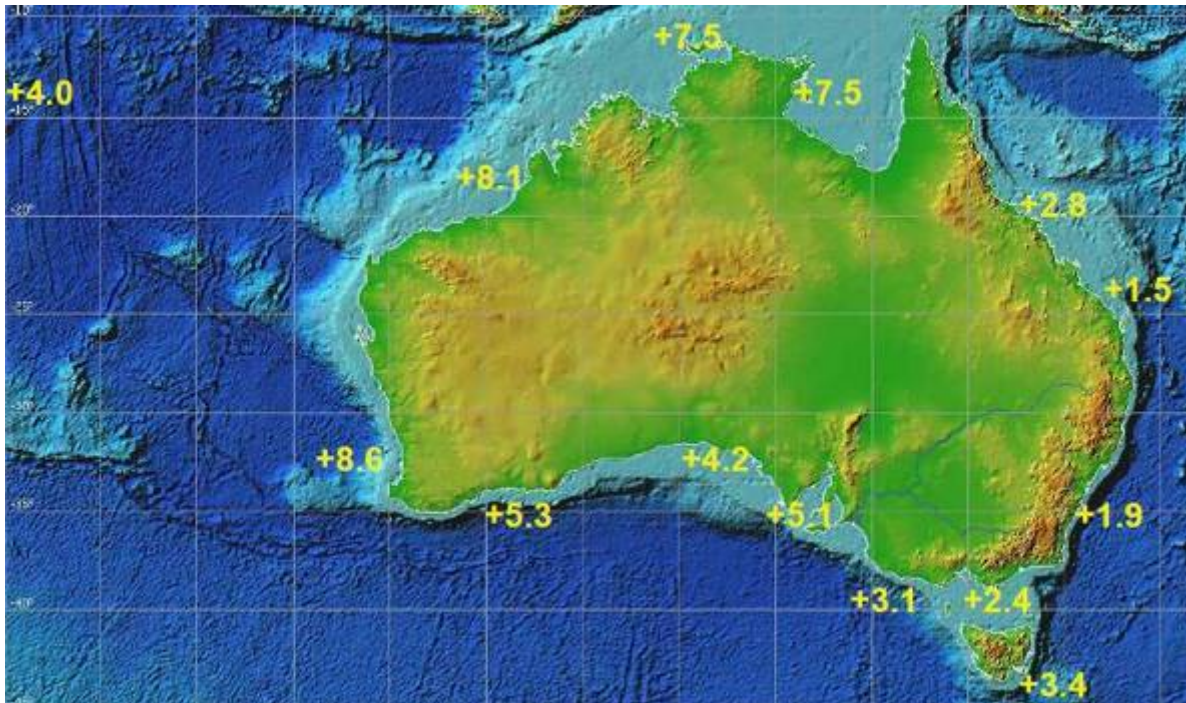
Sea Level Rise (SLR) has occurred at a global mean rate of 1.7 mm per year for the past century, and more recently over the last 20 years this has increased to rates estimated near 3.1 ± 0.7 mm per year (1993-2003) (Bindoff *et al.* 2007). The Australian Baseline Sea Level Monitoring Project (ABSLMP) has determined that the rate of sea level rise in the Top End is significantly higher (7.5 mm per year) than the global mean (more than double).

Since 1991, the ABSLMP has been monitoring SLR rise at 14 points of the Australian coast line (12 stations in mainland Australia, one in Tasmania and one in Cocos (Keeling) Islands). There are two ABSLMP monitoring station located in the studied area, one in Darwin and one on Groote Eylandt.

Station	Latitude	Longitude	Installation Date
Groote Eylandt	13°51'36.2"S	136° 24' 56.1" E	September 1993
Darwin	12° 28' 18.4" S	130° 50' 45.1" E	May 1990

Monitoring stations have observed that sea level in Darwin has increased by 14.25 cm and since 1993; sea level in Groote Eylandt has increased by 12 cm (ABSLMP, 2009). Sea level rise trends have not been uniform across Australia as noted in Figure 9 with the largest rates of SLR have been observed along the northern and western Australian coast. The length of the date series is relatively short from a climate perspective; however it demonstrates a clear trend of SLR in the region which is consistent with satellite altimetry observation.

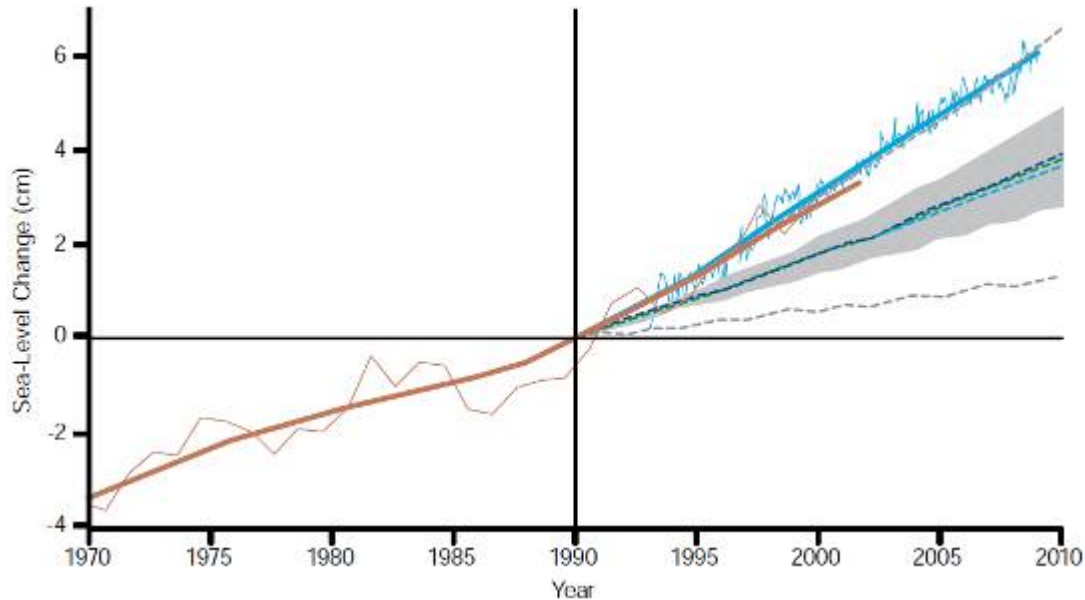
Figure 9 – Net relative sea level trend in mm/year after subtracting the effects of the vertical movement of the platform and the inverse barometric pressure (ABSLMP 2009)



SLR is particularly important for low lying areas as it enhances coastal erosion, proneness to inundation and increases storm surge/storm tide vulnerability. Sea level has been rising at close to the upper end (worst case scenario) of the IPCC projections (ACE CRC, 2008).

Figure 10 shows the global SLR changes (1970-2008) in comparison to the IPCC SLR projections. Note that the red and blue lines show observed global SLR from two different sources. The grey shaded area is showing the envelope of IPCC projections for SLR.

Figure 10 – Global sea level change from 1970 to 2008 (DCC 2009a)



Sea Level Rise Projections

The mid-range value of 1.1 m was used for this project in alignment with the DCC (2009b) report *Climate Change Risks to Australia's Coast* which stated that "A SLR value of 1.1 m by 2100 was selected for this assessment based on the plausible range of SLR values from post IPCC research" (DCC, 2009b).

An overview of recent SLR projections is provided in Table 10. These projections are the best currently available recognising that they may still evolve during the 21st century as the understanding of the processes involved in sea level rise are improved.

Table 10 – SLR projections and their various sources

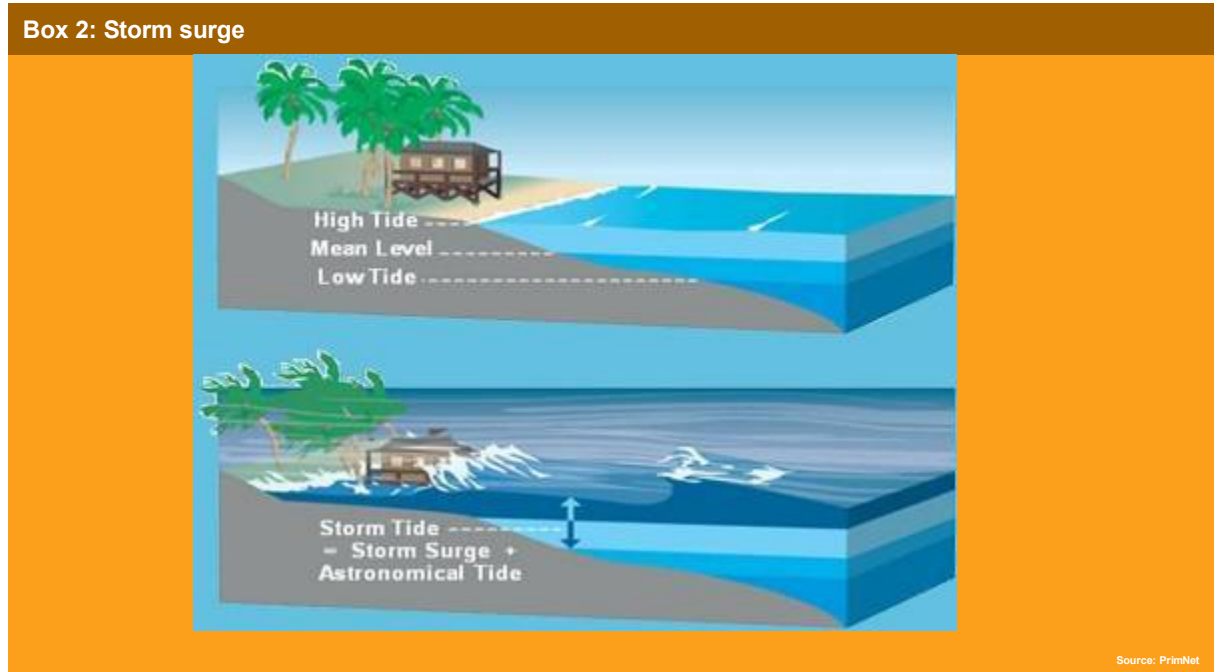
Source	2100 projection
IPCC 4AR (2007)	Up to 79 cm
Copenhagen Congress (2009)	1.1-1.2 m
Rahmstorf (2007)	1.4 m
Hansen (2007)	5 m

The SLR projections presented to the March 2009 Climate Change Science Congress in Copenhagen ranged from 0.75 to 1.9 m by 2100 relative to 1990, with 1.1–1.2 m the mid-range of the projection (Rahmstorf, 2009). Rahmstorf's projection of a 1.4 m SLR by 2100 is also based on a statistical approach informed by the observed relationship between temperature and sea level (Rahmstorf et al, 2007).

Another paper by James Hansen (2007) suggests that a 5 m SLR by 2100 is plausible, based on the premise that increases in global average temperatures will become sufficient to cause ice sheets to begin disintegrating in a rapid, non-linear fashion on West Antarctica, Greenland or both, resulting in multiple positive feedbacks (Hansen, 2007).

6.5 Storm Surge and Storm Tide

The IPCC Fourth Assessment Report (2007) defines a storm surge as 'the temporary increase, at a particular locality, in the height of the sea due to extreme meteorological conditions'. More specifically, the reduced atmospheric pressure resulting from a low-pressure system, as well as strong winds pushing on the ocean surface, may result in water levels rising to above mean sea level. The shape of coastal zones also influences the formation of storm surges. The most severe storm surge events typically occur when low pressure meteorological events occur in conjunction with high tides, as well as large wave swells generated by strong winds. Box 2 shows a schematic representation of a storm surge.



Storm surges are most damaging when they occur at the time of a high tide, particularly if there is a large tidal difference (big tides) like in the Top End. The most extreme storm surge events typically occur as a result of cyclones. Some low lying areas in Wagait Shire have been impacted by storm surge in the past. The town is on high ground and not likely to be directly affected.

Storm Surge and Climate Change

Climate change is expected to significantly increase storm surge height by sea level rise and to a lesser extent by changes in wind speed (DCC, 2009b). Increased wind speed due to climate change may also affect storm surge heights. These changes will increase inundation risk, which is best described as the likelihood of exceeding a given level of tide, storm surge and flood height over a particular timeframe. However, this approach rests on the assumption that mean sea level will remain constant. Potential future sea level rise combined with increased wind intensity means that climate change is likely to increase the frequency of extreme sea level events.

Larger storm surges in future will inundate and flood low lying areas potentially impacting fresh water creeks in Wagait.

6.6 Cyclones

A cyclone is defined as a tropical depression of sufficient intensity to produce gale force winds, i.e. at least 63 km/h. Cyclones are called hurricanes in the North Atlantic and Typhoons in the North Pacific. This kind of event is not only dangerous because it produces destructive winds but also because it is associated with torrential rains (often leading to floods), storm surge and wild sea conditions. Generally, sea surface temperatures need to be at least 26.5°C to initiate a cyclone, although the cyclone can then move over colder waters. Cyclones are classified depending on the speed of their winds. An example of the classification is provided in Table 11.

Table 11 – Classification of the cyclones based on BoM values

10 minutes sustained winds (knots)	BoM classification of cyclones
< 28 (52 km/h) – 33 (61 km/h)	Tropical Low
34 (63 km/h) – 47 (87 km/h)	Cyclones (Cat. 1)
48 (89 km/h) – 63 (117 km/h)	Cyclones (Cat. 2)
64 (118 km/h) – 85 (158 km/h)	Severe Cyclones (Cat. 3) (e.g. Tracy)
86 (160 km/h) – 106 (196 km/h)	Severe Cyclones (Cat. 4) (e.g. Ingrid)
107 (198 km/h) – 114 (211 km/h)	Severe Cyclones (Cat. 5) (e.g. Monica)

Cyclone Projections

Most climate models indicate an increase in the intensity of cyclones (more Category 4 and Category 5 cyclones) yet also indicate that there is likely to be a decrease in the total number of cyclones for 2030 and 2070. By the second half of the 21st Century, mechanisms associated with the structure of the atmosphere may induce a decrease of the cyclonic activity in this part of the world.

6.7 Other variables

Ocean Acidification

The ocean absorbs carbon dioxide (CO₂) naturally from the atmosphere. This mechanism acts as a buffer effect for increasing atmospheric CO₂. However, the ability of the ocean to absorb CO₂ will decline over time leading to more CO₂ concentrations in the atmosphere and enhanced warming of the air temperature. A negative side effect of the CO₂ absorption is ocean acidification. One of the main concerns of ocean acidification is that it might cause some marine organisms to be unable to develop their calcium carbonate shells such as crab shells. The future pH in the ocean will be mainly driven by atmospheric CO₂ concentrations rather than the degree of warming.

Ocean Current

The main ocean current in the vicinity of the NT coast is the Indonesian Throughflow (which is the main current that flows in a westerly direction between Indonesia and the Top End). Observations over the last 50 years indicate a reduction in the strength of the Indonesian Throughflow. Results from climate models indicate that this trend should continue in the future. This will likely change the patterns of fish and seed migration along the coast which may impact the coastal ecosystems in Wagait and potentially reduce availability of ocean based food. Box 3 illustrates the Indonesian Throughflow.

Box 3: Eastern Indian ocean currents



Source: CSIRO

Part 3 – Climate Change Impacts and Vulnerability in Wagait

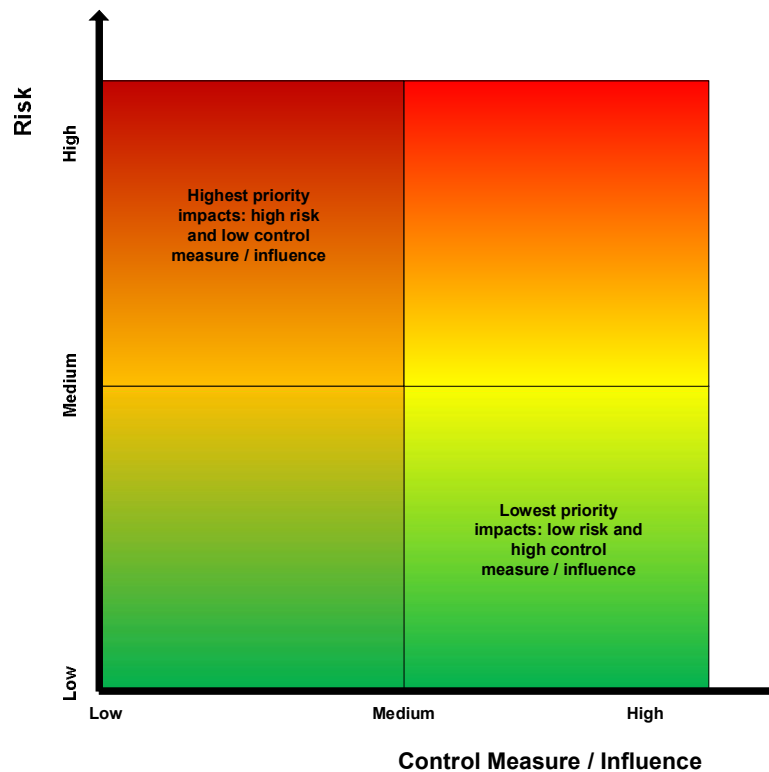


7.0 Involving Wagait Community and Shire Council: Wagait workshop

On the 11st March 2010, one workshop was held with the Wagait community. The elected president of the Council participated to the workshop. The participants were organised in three groups, one focusing on assets and infrastructure, one on emergency management and public health and the last group focusing on the natural environment and cultural issues.

The workshop provided the opportunity to discuss climate change issues with the community and Council. Key climate trends relevant for the region were presented to the workshop's attendees. Workshop's attendees were then invited to tell stories about the weather or any changes they might have observed in terms of seasons or the natural environment. The second part of the workshop focused on rating and discussing risks associated with climate change. The purpose of this phase was to understand and discuss how risks associated with climate change were perceived by the Council and the Wagait community. Perceptions and ratings were captured using a risk matrix printed on an A0 paper sheet. Figure 11 shows the matrix used at the workshops.

Figure 11 – Risk matrix used at the workshop



Each issue was first rated in terms of “risk” from low to high. This risk aspect includes both likelihood and consequence. The participants were asked to discuss how many control measures are currently in place to reduce these risks and how much influence does the community and the Council have on other organisations that are potentially able to help manage these risks. These different risks were written on post it notes and additional comments were noted on additional post it notes and stuck on the back of the relevant risk post it notes. Figure 12, Figure 13 and Figure 14 show the results of the climate change risk rating for the three different groups.

Once all the risks were identified, the participants raised and discussed several adaptation responses to the risks and impacts they had identified in the earlier phase of the workshop. The results of these different approaches and discussions were used to inform the development of the risk tables shown in Section 8.0 in combination with literature review, stakeholder discussions and AECOM experience. The workshops were also designed to raise awareness of the issues and potential responses.

Figure 12 – Emergency management and public health focus group

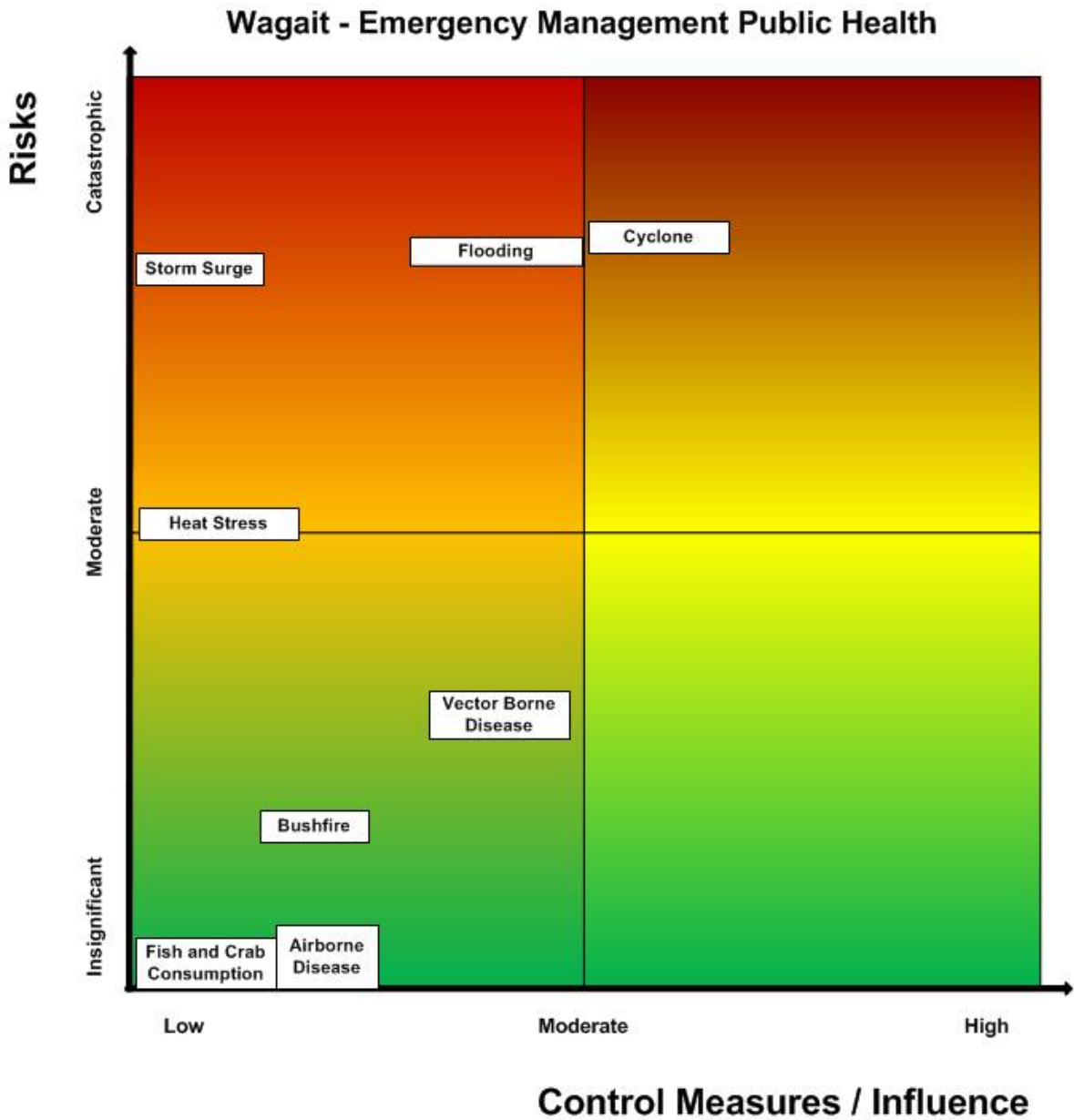


Figure 13 – Assets and infrastructure focus group

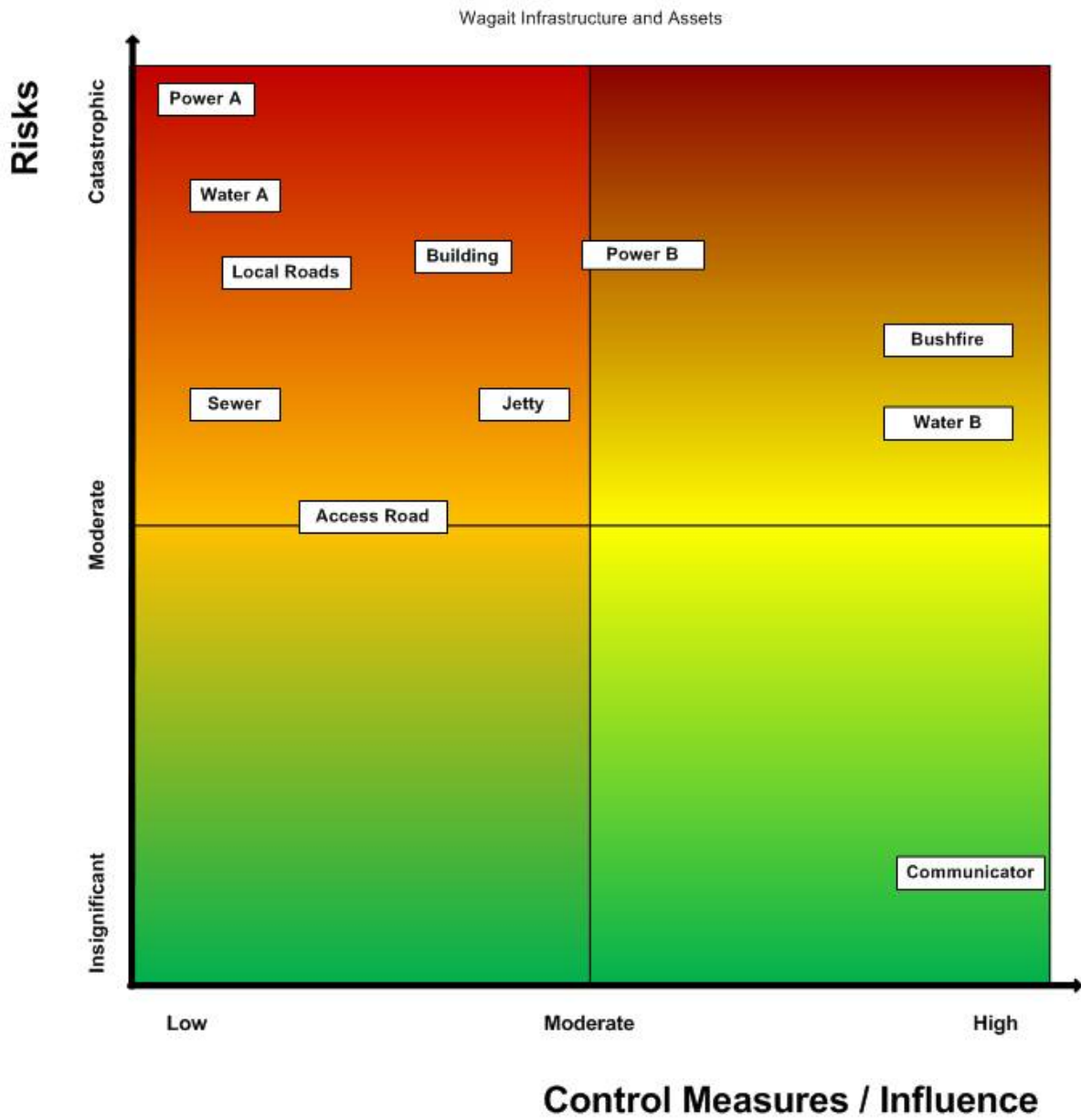
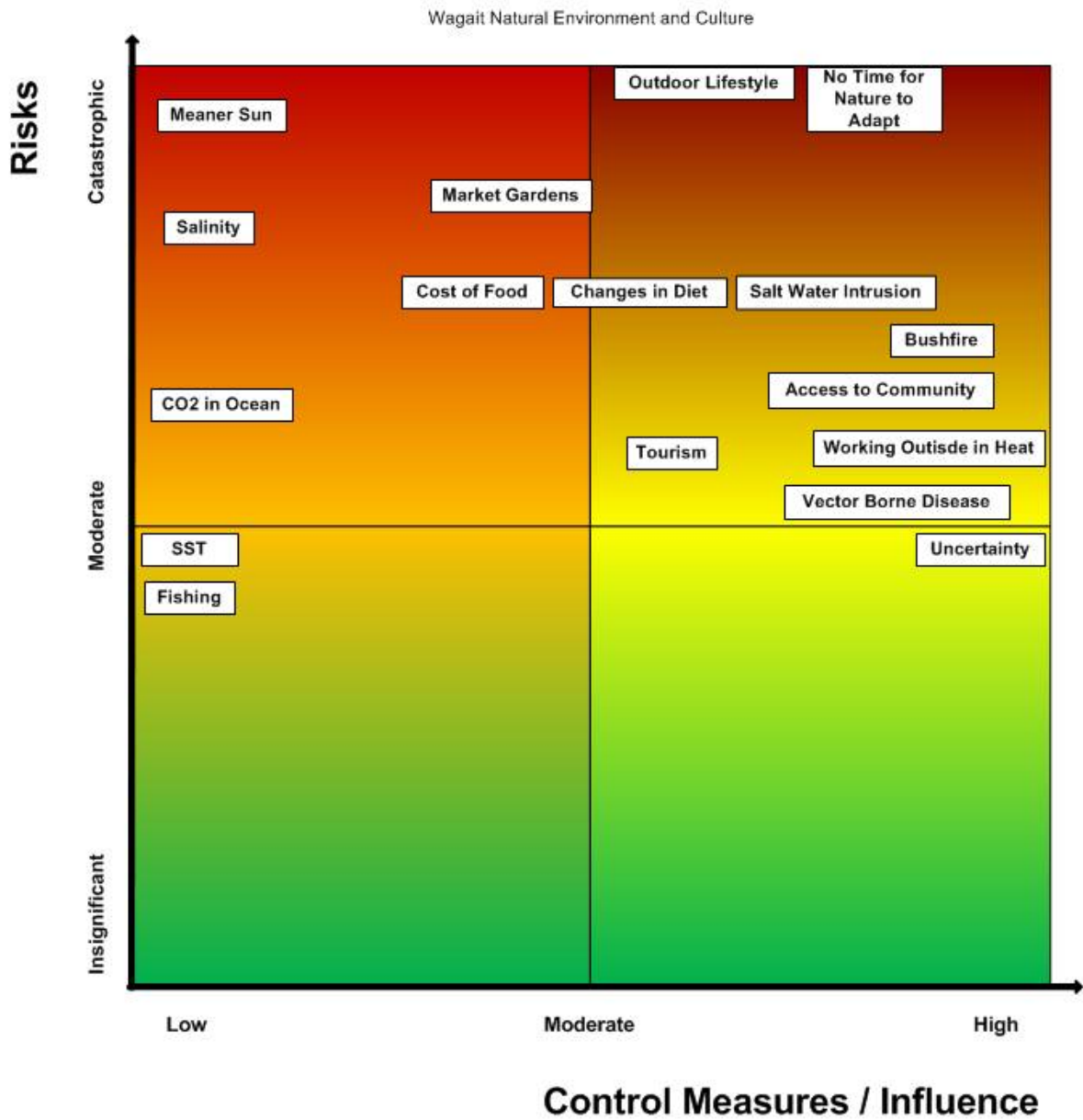


Figure 14 – Natural environment and culture group



8.0 Climate change impacts and vulnerability on Wagait Shire Council assets and services

8.1 Introduction

Climate change risk is analysed as a function of the likelihood of the risk occurring, the consequences associated with this risk occurring and the effectiveness of the control systems in place to address the risk. The risks and impacts identified for sectors and regions across the Council area is assigned likelihood and consequence ratings from 1 to 5 (1 being low and 5 being high) to create a combined rating out of 25. Table 12 provides a generic overview of the consequence levels. These levels represent the degree or level of consequences to which Wagait's infrastructure, community and environment are likely to be exposed if a given climate change impact occurs.

Table 13 provides a generic overview of the likelihoods of recurrent risks and single events.

Table 12 – Qualitative Measures of Consequences

Level	Descriptor	Infrastructure	Community	Environment
1	Insignificant	No infrastructure damage.	No adverse human health effects or complaint.	No environmental damage.
2	Minor	Localised infrastructure service disruption. No permanent damage. Some minor restoration work required. Early renewal of infrastructure by 5-10%.	Slightly adverse human health effects. Isolated but noticeable increased decline in social cohesion (e.g. conflict over resources).	Minor instances of environmental damage that could be reversed. I.e. negative impact on a specific species.
3	Moderate	Widespread infrastructure damage and loss of service. Damage recoverable by maintenance and minor repair. Partial loss of local infrastructure. Early Renewal of Infrastructure by 10-20%.	Frequent disruptions to employees, customers or neighbours. Adverse human health effects. Minor public debate General appreciable decline in social cohesion.	Isolated but significant instances of environmental damage that might be reversed with intense efforts.
4	Major	Extensive infrastructure damage requiring extensive repair. Permanent loss of local infrastructure services, e.g. airstrip. Early renewal of Infrastructure by 20-50%.	Permanent physical injuries and fatalities may occur from an individual event. Significant public debate about climate change, constrained resources and services. Severe and widespread decline in services and quality of life within the community.	Severe loss of environmental amenities and a danger of continuing environmental damage.
5	Catastrophic	Permanent damage and/or loss of infrastructure service across state. Retreat of infrastructure. Support and translocation of residential and commercial development.	Severe adverse human health effects – leading to multiple events of total disability or fatalities. Emergency response. Public outrage.	Major widespread loss of environmental amenity and progressive irrecoverable environmental damage.

Table 13 – Qualitative Measures of Likelihoods

Level	Descriptor	Recurrent risks	Single events
5	Maybe several times every year	Could occur several times per year	More likely than not / Probability greater than 50%
4	Maybe once every year	May arise about once per year	As likely as not / 50/50 chance
3	Maybe a couple of time in a generation	May arise once in 10 years	Less likely than not but still appreciable / Probability less than 50% but still quite high
2	Maybe once in a generation	May arise once in 10 years to 25 years	Unlikely but not negligible / Probability low but noticeably greater than zero
1	Maybe once in a lifetime	Unlikely during the next 25 years	Negligible / Probability very low, close to zero




The combination of the consequence and likelihood analysis result in a ranking of the different vulnerabilities. Table 15 provides a generic overview of the risk ranking.





Table 14 – Vulnerability Rating Matrix

		Consequences				
		Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	Almost certain (5)	M (5)	M (10)	H (15)	E (20)	E (25)
	Likely (4)	L (4)	M (8)	H (12)	H (16)	E (20)
	Possible (3)	L (3)	M (6)	M (9)	H (12)	H (15)
	Unlikely (2)	L (2)	L (4)	M (6)	M (8)	M (10)
	Rare (1)	L (1)	L (2)	L (3)	L (4)	M (5)


The risk assessment is an important step in the process of further understanding the potential implications of changes in climate into the future. In particular it was used to guide the scoping of investigations and assessments, to guide adaptation responses, and to assist in identifying appropriate control measures and management responses. In the following tables, the risk of each identified potential impact is considered by identifying the consequences of the impact and the likelihood of it occurring. Under the risk description, an indication of potential control measures is presented in *italics*. The *control / influence measures* or comment was derived from a combination of the workshops, discussions with Council and LGANT representatives as well as from relevant literature review. Several key themes were assessed including Assets and Infrastructure; Emergency Management and Extreme Climatic Events; Public Health; Natural Environment and Culture; and Other Issues.



8.2 Assets and infrastructure

Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
Loss of power supply 	Medium (9)	High (12)	Loss of power supply from storms damaging transmission and distribution assets. Storm surge impacting the low lying substation located near Mandorah ferry landing. The power is supplied from Darwin via a submarine cable. <i>Moderate/high control/influence due to several backup generators.</i>	3 Possible by 2030 due to SLR. 4 Likely by 2070 due to more pronounced SLR and increased level of storm surge.	3 Moderate by 2030 and 2070 due to damage and loss of substation infrastructure at Wagait, loss of distribution lines during extreme storms. Temporary loss of power to homes, refrigeration, pumping, air conditioning and lighting.
Loss of water supply and water storage 	Medium (6)	High (12)	Loss of water distribution and storage from salt water intrusion into groundwater from sea level rise and reduction in annual rainfall and extension of the dry season reducing groundwater quality and availability. Intense cyclone could also wipe out current community supply water tanks. <i>Moderate control by locating new groundwater supplies.</i>	3 Possible by 2030 4 Possible by 2070 due to increase in length of dry season.	3 Moderate for 2030 and 2070 due to temporary loss of water for household health functions. Loss or damages to community supply water tanks would have significant impacts on the community.
Loss of road access 	High (12)	High (12)	Loss of sealed and unsealed road access from flooding (including SLR and storm surge) leading to isolation and loss of amenity for residents. <i>Moderate control.</i>	4 Likely by 2030 and 2070.	3 Moderate by 2030 and 2070 from temporary loss of access to work, commodities, health support and schooling. Road damage recoverable by maintenance and minor repair.

Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
Damaged ferry pier 	Medium (6)	Medium (9)	Damage to ferry pier landing from increased height and intensity of storm surge reducing access to Darwin. <i>Moderate control/influence as temporary barge landings could be used.</i>	2 Unlikely by 2030. 3 Possible by 2070 due to significant sea level rise and increased level of storm surge.	3 Moderate by 2030 from temporary loss of access to work, commodities, health support and schooling. Ferry pier damage recoverable by maintenance and minor repair.
Damaged houses 	Medium (9)	High (12)	Damaged houses from increased intensity of extreme storm events impacting the housing and property. <i>Moderate control/influence as householders are prepared for flooding and storms during wet season.</i>	3 Possible by 2030. 4 Likely by 2070	3 Moderate by 2030 and 2070 from partial loss of housing requiring significant repairs. Adverse health effects and short term local disruption.
Loss of communications 	Low (4)	Low (4)	Loss of communications for an extended period of time due damaged fixed lines, mobile towers and terminals from storm events. <i>High control due to several households having alternative technology for communication – satellite phones.</i>	2 Unlikely by 2030 and 2070.	2 Minor for 2030 and 2070 from minor local communication disruption and minor restoration works.
Loss of sanitation 	Low (2)	Low (2)	Loss of sanitation from salt water intrusion into treatment ponds and into underground septic tanks caused by increased sea level rise and storm surge. <i>Low influence for sanitation assets.</i>	1 Rare by 2030 and 2070.	2 Minor for 2030 and 2070 from slight adverse health effects and impacts on amenity.


8.3 Emergency Management and Extreme Climatic Events

Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
<p>Damage from greater intensity cyclone</p> 	High (15)	Extreme (20)	<p>With climate change the intensity of cyclones is expected to increase with climate change (Note: the overall number of cyclones is projected to decrease). The last cyclone to hit Wagait was Tracy (Category 3) in 1974.</p> <p><i>Relatively high control as there is a specific emergency management plan, a communication room and some emergency exercises (one to two per year). In case of a cyclone coming, volunteers would go around the community and check who is here. There are no clear recommendations in terms of “stay and defend” or “leave” when a cyclone is coming.</i></p>	<p>3 Possible by 2030.</p> <p>4 An increase in the intensity of cyclones is likely by 2070.</p>	5 Catastrophic – A category 4 or 5 cyclone would result in great damage to Wagait community with widespread infrastructure damage, significant loss of environmental amenity and severe adverse human health impacts.
Damage from bushfire	Medium (6)	Medium (9)	<p>Climate change could increase the likelihood of bushfire because of warmer and drier conditions. There have not been significant bushfires in Wagait over the past 30 years. Bushfire is not currently considered as an issue.</p> <p><i>Moderate control as the community and Council conduct slash burning around Wagait to control fuel loads. There is a local fire fighting unit with two fire trucks and some volunteers.</i></p>	<p>2 Unlikely by 2030.</p> <p>3 Possible by 2070 due to increase in air temperature, possible decrease in rainfall and potential extension of the dry season.</p>	3 Moderate for 2030 and 2070. Extended bushfire could damage significantly houses and infrastructure. Loss of species and simplification of habitats as a result of increasing fire frequency is well documented in many areas of the Australian continent, including the NT.


Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
Flooding 	Medium (9)	High (12)	<p>Potential increased in flood proneness as the drainage network is converging to one drain and flowing in the ocean. SLR would limit or even suppress the ability of this drain to evacuate water.</p> <p><i>Moderate control. The Council is currently managing the drainage network to keep free of weeds and sediments (annual cost of around \$ 20,000). However the drainage network might need to be upgraded to take into account rising sea levels.</i></p>	3 Possible by 2030 because of SLR and potential increase in heavy rainfall events.	3 Moderate by 2030 and 2070 as flooding becomes more frequent and change from being just a nuisance flooding to a more damaging and long lasting flooding.
				4 Likely by 2070 due to more pronounced SLR and potential increase in heavy rainfall events.	
Storm surge 	High (12)	High (16)	<p>No significant storm surge has occurred in Wagait over the past 20 years. With rising sea level, storm surge height is likely to increase. A study (ACE CRC, 2008) suggested that a sea-level rise of 0.5 m would result in a multiplying factor of 1,000 for the increase in the frequency of occurrence of high sea-level near Darwin.</p> <p><i>No control. The Council does not have any control in terms of land use planning.</i></p>	3 Possible by 2030 because of SLR.	4 Major as key infrastructure (ferry pier, electrical sub-station, etc.) would be damaged. Some houses could also be damaged.
				4 Likely by 2070 due to more pronounced SLR.	

8.4 Public health

Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
<p>Mosquitoes and vector borne disease</p> 	<p>Low (4)</p>	<p>Low (4)</p>	<p>There are always lots of mosquitoes and sand flies (biting midges) around Wagait. The highest numbers of biting midges occur around the time of the full moon and to a lesser extent around the new moon, particularly from August to November. Salt Marsh mosquito (<i>Aedes vigilax</i>) numbers are high from August through January, particularly following high tides greater than 7.8m. (Whelan and Kurucz 2010). Some literature (Russell 2009) indicates that higher temperature with similar or lower humidity level could decrease mosquito's population through desiccation. Potential malarial zones are expected to shift because of climate change (and shift in the zones where the vectors occur) but are unlikely to establish permanently in Australia (McMichael et al. 2003).</p> <p><i>There is no mosquito control program at Wagait (e.g. spraying). As part of the cyclone clean-up, old tyres and drums are collected from backyards but there are too many wetlands, swamps and drains to make a significant difference.</i></p>	<p>2</p> <p>It is unlikely that biting insects' population will change dramatically by 2030.</p> <p>2</p> <p>It is unlikely that biting insects' population will change dramatically by 2070.</p>	<p>2</p> <p>Minor – Mosquitoes and biting midges mainly result in discomfort through bites. Some bites can become infected especially with young children. <i>Aedes vigilax</i> is regarded as the most important pest mosquito in the Top End because of its aggressive biting habits, its ability to bite during the day as well as the night, and its sudden emergence in plague proportions. <i>Aedes aegypti</i> can carry disease (dengue fever) and represent a greater danger.</p>

Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
<p>Heat related illness (including heat stress)</p> 	<p>High (12)</p>	<p>High (15)</p>	<p>Climate change is very likely to result in warmer air temperatures (mean and maximum temperature). It is also expected that hot spells and heat waves will become more frequent. During hot spells and heat waves morbidity increase with higher risks of heat stress, rashes and cramps and potentially fatal heat stroke. Young children and elderly are particularly at risk. People suffering medical conditions such as obesity, cardio-vascular and renal disease and alcohol dependence are also more exposed to heat related illness. Dehydration can have serious consequences on the renal system.</p> <p><i>Low to moderate control – People in tropical areas are generally accustomed to high temperature all year round and are less sensitive than the population in southern Australia. However this can lead to a false sense of safety to extreme temperatures especially because of prevalent health conditions in the community. All the Council’s buildings are equipped with air conditioning as well as many individual houses.</i></p>	<p>4 Highest air temperature (minimum, mean and maximum) is likely by 2030.</p> <p>5 Highest air temperature (minimum, mean and maximum) is almost certain by 2070.</p>	<p>3 Moderate – Even if tropical communities are more resilient to heat stress and heat waves, it is expected that warming associated with climate change will result in temperatures exceeding historical values.</p>
<p>Airborne and dust related illness</p>	<p>Low (2)</p>	<p>Low (2)</p>	<p>All roads in Wagait are sealed; when bushfires occur the smoke is blown away by the prevailing winds. An increase in bushfire could increase the exposure of the Wagait community to bushfire smoke although it is quite unlikely.</p>	<p>1 Rare by 2030 and 2070.</p>	<p>2 Minor – Changes in dust and bushfire conditions are unlikely to be insignificant and would affect a small portion of the population.</p>

8.5 Natural Environment and Culture

Risk Title	Risk Rating 2030	Risk Rating 2070	Risk Description	Likelihood	Consequences
Salt water intrusion into freshwater waterways and billabongs 	Medium (9)	High (16)	With climate change sea level rise and the height of storm surge is expected to increase. <i>There is some natural resilience in ecological systems with regard to saltwater intrusion however increasing numbers of intrusion events and/or increasing intensity of intrusion events would erode this resilience and the system would be affected</i> <i>The control over saltwater intrusion would be very limited. Although there are engineering solutions available, the cost of these would be difficult to justify given the intrinsic and unquantifiable value of freshwater ecosystems to social, cultural and health outcomes in communities.</i>	3 Possible by 2030.	3 Moderate impacts by 2030 and increasingly affected by 2070. Ecological consequences would include loss of freshwater species; e.g. in Paperbark swamps.
			4 An increase in sea level and the intensity of cyclones is likely by 2070.	4 Major impacts on freshwater systems which play an important role (to date unquantified) in the social, cultural and economic life of the community. They represent a food source (e.g. turtles) as well as a key element in recreational activities.	
Increased pollution from landfills	High (12)	High (12)	Increased inundation of waste management facility leading to contamination of groundwater, soil and surrounding connected landscape. <i>Moderate control due to ability to move waste management facility to a more appropriate location. Currently minimal management – poorly sited – often rubbish is burning or flooded.</i>	4 Flooding is likely to increase over time by 2030 and 2070.	3 Moderate impact as population (and waste) increases and as flooding events increase. Contamination impacts to natural environment and human health are moderate.

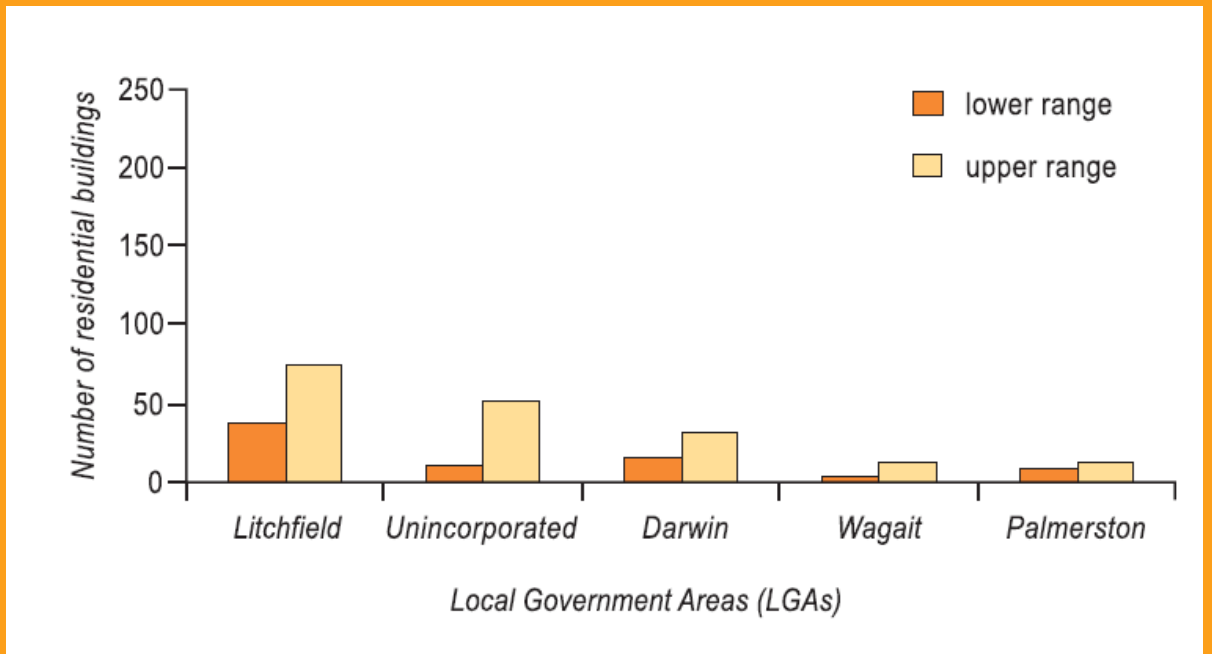
Box 4: Climate Change Risks to NT's Coast

The first pass national assessment of *Climate Change Risks to Australia's Coast* is one of the key actions identified in the *National Climate Change Adaptation Framework* endorsed by the Council of Australian Governments in 2007. This report released by DCC in 2009 examined the impacts of SLR on the Australian coastline.

Each State and Territory was considered as part of this assessment. Chapter 5.1.8 looked more specifically at the NT. Most of the NT is constituted of muddy shores (mainly muddy tidal flats and mangroves). This type of coast is very dynamic and tends to recede and over washed during extreme events.

The assessment used a worst case scenario of 1.1 m SLR. The local government area of Litchfield present the highest number of buildings potentially inundated as a result of SLR. It is expected that around 3.5% of the buildings in Wagait will be inundated with a 1.1 m SLR. Figure 15 is showing the number of residential buildings potentially inundated for the different areas considered in that study, including for the Wagait area.

Figure 15 – Estimated number of existing residential buildings in the Northern Territory at risk of inundation from a sea-level rise of 1.1 metres. The 'Unincorporated' area surrounds the LGAs of Darwin, Litchfield and Palmerston. (DCC 2009).



Source: DCC 2009b

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Part 4 – Towards Adaptation: Responding to Climate Change

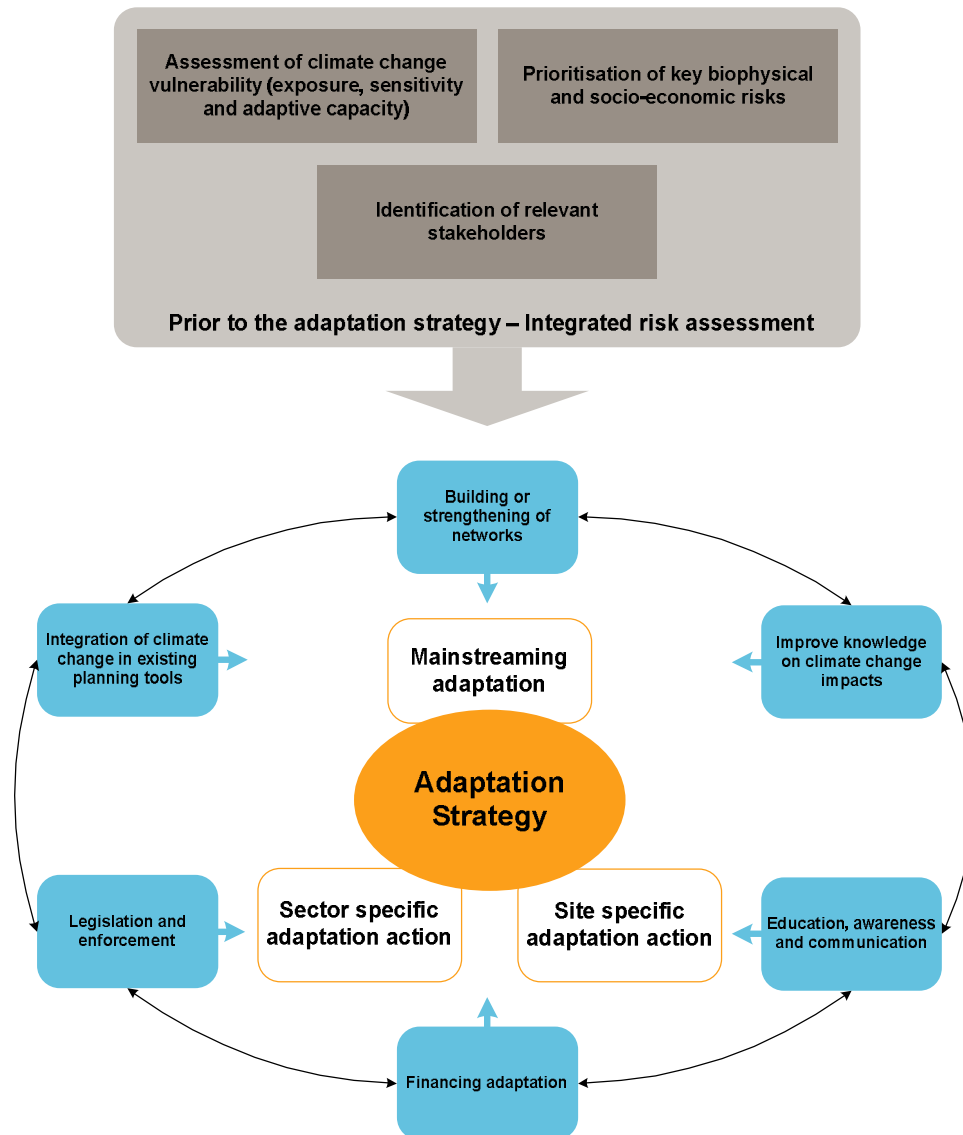


9.0 Adaptation Strategy and Adaptation Options

9.1 Overall approach

The integrated risk assessment performed by AECOM is the first step toward an adaptation strategy. As outlined in Figure 16 the adaptation process is a cross-sectoral and multi-disciplinary approach.

Figure 16 – Strategic Planning Process for Climate Change Adaptation



This approach shows that as well as adaptation options that can be implemented for site specific or eventually sector specific issues there is a strong need for “mainstreaming” climate change adaptation. Mainstreaming adaptation means that climate change adaptation is integrated in all relevant Council policies and documents. An adaptation strategy often combines hard adaptation options (such as sea walls or infrastructure related solutions) and soft adaptation options (such as awareness program, re-vegetation actions, etc.).

The Council could consider developing an adaptation strategy to prepare for the inevitable impacts of climate change which have been discussed in Section 8.0. This strategy could explore the adaptation options shown in Section 0. One of the most important steps of this process is the community understanding, acceptance and ownership of the process. An adaptation strategy needs to be built on local knowledge and tailored to the available resources and local conditions.

9.2 Barriers to Adaptation

9.2.1 Little Climate Change Awareness within the Community

There was some awareness of climate change within the community prior to this project's workshops. While there was no questioning of the consequences of climate change there was more debate on the causes of the phenomena. This climate change risk assessment project contributed to improve the Wagait's community understanding of climate change but there is still a need for better awareness and education on climate change issues.

9.2.2 Lack of Resources

The Council has limited financial and human resources. There are few economic activities generating wealth and revenue within the Wagait area. Furthermore there are relatively limited human resources within the Wagait Shire Council. This lack of resources represents a significant constraint for any adaptation actions. Most adaptation options will rely on external and possibly once-off funding.

9.2.3 Lack of Statutory Control over Planning by the Wagait Shire Council

The Council does not have any statutory control over land use planning. Land use planning in the area is the responsibility of the NT Government (Department of Lands and Planning). This lack of control over land use planning aspects is greatly reducing the ability of the Council to develop adaptation measures.

9.3 Adaptation options

The risk assessment, community workshops, stakeholder engagement, literature review and AECOM experience informed the development of these adaptation options. Adaptation options have been developed for all Medium, High and Extreme risks identified in the previous section. The options are grouped in the following themes below:

- A) Raising awareness of climate change
- B) Improve awareness of heat related illness
- C) Incorporate climate change into procurement
- D) Improve resilience of infrastructure for the community
- E) Prepare a Council position paper on climate change

Each theme explores relevant adaptive capacity and identifies one or more adaptation options. These adaptation options are prioritised in section 8.4.

Raising awareness on climate change

In order to build resilience to climate change impacts it is important that the local community is made aware of the expected impacts of climate change on their community. Building greater community appreciation of the potential climate change impacts will help mobilise community support for adaptation activities and as such create an informed and responsive local community' Public awareness and education programs involving community representatives could help convey information about the impacts of climate change and gain consensus on the adaptation options. Of special importance would be awareness efforts aimed at engaging communities in a manner that is culturally sympathetic and and which integrates cultural knowledge and traditional practices as part of the adaptation solution.

Adaptive capacity

The participants to the Wagait workshop showed a good understanding of climate change issues. The community should be relatively easy to target in terms of awareness program.

Option 1

Develop and deliver a community education and awareness program to build community resilience.

Improve awareness of heat related illness

There is a need to continue building awareness of the impacts of increased occurrence of higher temperature days on people, particularly on the elderly and young. Education on the prevention and response approaches need to be incorporated into the health services for this community (e.g., increased hydration on hot days).

Adaptive capacity

The community has well developed behavioural and cultural responses to manage heat stress. However this is sometimes seen as obstacles as tropical communities are “accustomed” to heat stress events and sometimes do not seriously consider this as a risk.

Option 2

Incorporate increased heat wave related illness into education provided by health services to the community.

Incorporate climate change into procurement

The procurement process is an important point of leverage to include climate change in relevant infrastructure, technology and services tenders and contracts. Infrastructure and technology are usually designed for long life times and will be impacted by climate changes such as flooding and sea level rise during their design life.

Adaptive capacity

There is currently very little guidance available from the Federal or Northern Territory Government on the incorporation of climate change into procurement for infrastructure and services.

Option 3

Use procurement process to screen investment to address climate change risks to infrastructure and services.

Improve resilience of infrastructure for the community

There are several infrastructure upgrades that will be required over time to respond to climate change. These include drainage infrastructure, community water supply tanks and electrical sub-station. Other assets such as roads, houses and community facilities would ideally need to be designed to cope with future climate conditions not just past conditions.

Adaptive capacity

The existing water access arrangements to groundwater are sufficient in the short to medium term, but could require new well locations in the longer term.

Option 4

Include climate change considerations in the upgrade, design and development of key community infrastructure.

Option 5

Seek resources for additional upgrade of the drainage network.

Option 6

Engage in a dialogue with Power and Water Corporation (PWC) to discuss potential upgrade or relocation of the electrical sub-station and the community water supply tank.

Improve protection against storm surge and SLR

Increase in storm surge height has been highlighted as a significant risk for the Wagait. The National Coastal Vulnerability Assessment (DCC 2009) highlighted that up to 3.5% of Wagait residential buildings would be inundated with a 1.1 m SLR. The response should consider engineering solutions (defend or manage) and natural system and land use planning solutions (adapt or retreat).

Adaptive capacity

There is a very limited adaptive capacity as the Council does not have any control over land-use planning.

Option 7

Identify potential engineering solutions for the most threatened areas and integrate SLR and storm surge risks in land-use planning.

Prepare a position paper on climate change to engage with other institutions

Land-use planning is one of the most important aspects of climate change adaptation but Council does not have control over land-use planning. Additionally a number of the risks likely to be exacerbated by climate change are outside of the Council's control. Therefore the Council could prepare a position paper and use it as support material to influence other levels of government.

Adaptive capacity

There is a very limited adaptive capacity as the Council does not have any control over land-use planning.

Option 8

Prepare a Council's position paper (using this report) to engage in dialogue and influence other institutions which have control over some risks and adaptation needs.

9.4 Prioritising of Adaptation Options

AECOM used the adaptation options prioritisation framework below to analyse and compare the different adaptation options that could be implemented to address key climate change risks. Table 15 describes the indicative analytic framework for adaptation options while

Each category of adaptation prioritisation is weighted with the following scoring: High = 3 points; Medium = 2 points and Low = 1 point. The exception to this is the weighting for Effectiveness and Cost which is High = 6 points; Medium = 4 points and Low = 2 point. The results of the scoring are highlighted in Table 16.

These scores have been added up into a total score for each adaptation option. The options were then ranked in order of priority as shown in Table 17.

The highest four options related to awareness and education programs; focusing on supporting the community to explore solutions for themselves for maintaining the community and garden and dam and updating emergency management planning for extreme climatic events such as cyclones.

The next level of prioritised options focused on protecting the natural environment and reducing pollution from the landfill. The options for adapting infrastructure and seeking funding for new infrastructure for adaptation such as cyclone shelters are necessary to address the climate change risks identified for the Council but will take longer to implement.

This proposed ranking of the adaptation option should ideally be interrogated and amended by the Council in consultation with the Wagait community. The Council may for example score some other categories such as "Speed" or "Human Capability" with a higher weighting as a mean to determine the priority options that meet a particular policy and planning need.

Table 15 – Indicative adaptation options analytic framework

	High	Medium	Low
Effectiveness	High potential to reduce risk	Moderate potential to reduce risk	Potential to reduce risk is low or uncertain
Cost	No additional budget is required / Low costs	Additional budget is required but can be covered by Council's budget / Medium costs	Additional budget is required and involves complementary external funding / High costs
Speed	Can be completed within the next 12 months	Can be completed in the medium term (1-3 years)	Long term actions (3+ years)
Technical Feasibility	Proven adaptation approach / Widespread technical skills	Limited application of adaptation approach to date / Moderately available technical skills	Adaptation approach not applied to date / Niche and rare technical skills
Human Capability	Capability exists within Councils	Some external expertise or support is required	Delivery is dependent on external expertise
Consistency with Council Policy and Planning	Adaptation option fits with existing Council's planning and policy	Adaptation option could fit with existing Council's planning and policy	Adaptation option would require new Council's planning and policy
Community Acceptance	Potentially no conflict with communities for implementation	Possible conflict with communities for implementation	Likely conflict with communities for implementation

Table 16 – Prioritised adaptation options

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8
Effectiveness	Medium	Medium	Medium	High	High	Low	Low	Low
Cost	High ³	Medium	High	Low	Low	High	Low	Low
Speed	High	High	Medium	Low	Low	Low	Low	Low
Technical Feasibility	High	High	Medium	High	High	Low	High	High
Human Capability	Medium	Medium	Medium	Low	Low	Medium	Low	Low
Council Acceptance	Medium	High	Medium	High	Medium	Medium	Medium	Medium
Community Acceptance	High	High	Medium	Medium	Medium	Medium	Medium	Medium
SCORE	23	22	20	18	15	15	11	11
RANK	1	2	3	4	5	5'	6	6'

³ Please note that the scoring of High in the Cost category does not mean the cost is high but rather that it rates high as a priority because the cost is minimal.

Table 17 – Prioritised adaptation summary

Priority Ranking	Prioritised Adaptation Options for Wagait Shire Council
1	<i>Develop and deliver a community education and awareness program to build community resilience. Option 1</i>
2	<i>Incorporate increased heat wave related illness into education provided by health services to the community. Option 2</i>
3	<i>Use procurement process to screen investment to address climate change risks to infrastructure and services. Option 3</i>
4	<i>Include climate change considerations in the upgrade, design and development of key community infrastructure. Option 4</i>
5	<i>Seek additional funding for additional upgrade of the drainage network. Option 5</i>
5'	<i>Engage in a dialogue with Power and Water Corporation to discuss potential relocation of the electrical sub-station and upgrade of the community supply water tank. Option 6</i>
6	<i>Identify potential engineering, land use or natural system planning response to sea level rise and increased storm surge heights. Option 7</i>
6'	<i>Prepare a Council position paper on climate change to engage in a dialogue and influence other institutions which have control over some risks and adaptation options. Option 8</i>

10.0 Conclusions

Even if effective policies are put in place to reduce greenhouse gases emissions, the climate system will continue to change for decades or even centuries. The climate appears to have changed in the Wagait area over the past three decades (warmer temperature, slight rainfall decrease during the dry season and increase during the wet, etc.). It is very likely to continue to change throughout the 21st century. Among other changes, climate change will bring even hotter temperatures, more intense cyclones and sea level rise. These changes in the climate will impact the natural environment, infrastructures and the Wagait people.

This assessment has highlighted a number of risks associated with climate change to which the Wagait community and Council are exposed in the midterm (2030) and long term (2070). As the Council has limited resources it is important that the risks are identified and prioritised.

The most threatening climate change risks include: a loss of access road, damages by intense cyclones and storm surge, heat related illness, damages to houses, loss of electrical and water supply infrastructure. These risks have been rated “high” or “extreme” not only because of the climate change impacts influencing these elements but also because of the importance of the threatened assets and services to the Wagait community.

Another series of risks have been assessed as “low” including risks to some infrastructures (sanitation and communication) and risks associated with airborne and dust related illness and mosquitoes and insect borne disease. These risks could be considered as “secondary” by the Council and not treated actively for the time being.

A number of adaptation options have been identified to address these climate change risks. These adaptation options include raising awareness on climate change within the community, improving disaster preparedness and within the area, including climate change in the Council procurement and targeting heat and biting insect related illness in a health awareness campaign.

These adaptation options need to be discussed by the Council in consultation with the community to determine which actions need to be implemented in the short term. The analytical framework proposed in this report could be used as a tool to help the Council consider and rate the different adaptation options. Regardless of the adaptation options selected for implementation, it is crucial that the community is involved in the decision making process and take ownership of the solution. No adaptation strategy can be effective without the involvement of the Wagait community and the consideration of local and traditional knowledge.

This project was the first step for the Wagait community to prepare for the inevitable impacts of climate change. It has provided the opportunity for the Council and the Wagait community to discuss and interrogate the issues associated with climate change. The scoping phase visit and the workshops contributed to raising local awareness of climate change. There was a genuine interest shown by the community to discuss climate change even if some confusion remained around the causes and the impacts brought by climate change.

It is recommended that climate change risks are revisited by the community in the future. These activities could be driven by “climate change champions” within the community.

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Appendix A

Climate Change Information

Emissions Scenarios

The IPCC emission scenarios are divided into four families (A1, A2, B1 and B2). A description of each scenario is given in Table 18.

Table 18 – SRES scenarios

SRES Scenario	Description of Scenario	
A1FI	Rapid economic growth, a global population that peaks mid 21 st century and rapid introduction of new technologies	Intensive reliance on fossil fuel energy resources
A1T		Intensive reliance on non-fossil fuel energy resources
A1B		Balance across all energy sources
A2	Very heterogeneous world with high population growth, slow economic development and slow technological change	
B1	Convergent world, same global population as A1 but with more rapid changes in economic structures toward a service and information economy	
B2	Intermediate population and economic growth, emphasis on development of solutions to economic, social and environmental sustainability	

The IPCC developed scenarios in 1990, 1992 and 2000 (released as Special Report on Emission Scenarios, SRES). To reflect the last (and fast) changes of societies since 2000, new emission scenarios are currently under development.

Climate Projections

Table 19 presents more detail on the climate projections provided by the CSIRO for the region encompassing Darwin and the Tiwi Islands. This table shows two selected representative climate models (INMCM3.0 and CSIRO MK3.5) for an A1B emissions scenario for the year 2030; a B1 scenario for the year 2070 and an A1FI scenario for the year 2070 also. The climate model INMCM3.0 shows outcomes that are most likely (19 models agree) or likely (5 models) to occur. CSIRO MK3.5 shows a worst case scenario (1 to 3 models have indicated this change to climate).

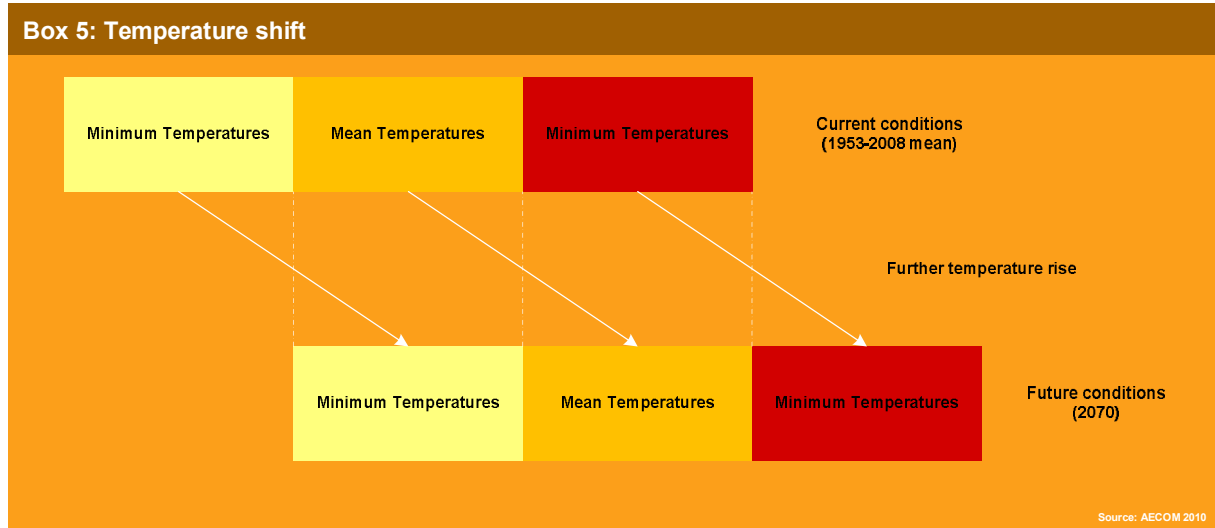
Table 19 – Climate projections for the Darwin/Tiwi Islands Region (CSIRO 2010)

Change in 2030 (A1B) with respect to 1990												
Story	Model	Mean precipitation			Mean surface temperature			Mean max surface temp	Mean min surface temp	Mean relative humidity		
		Ann	Wet	Dry	Ann	Wet	Dry	Ann	Ann	Ann	Wet	Dry
Most likely (19 models): Warmer - Little rainfall change	INM-CM3.0	-2.42	-1.07	-9.19	0.75	0.76	0.74	0.7	0.8	-0.67	-0.41	-0.86
Worst case (1 model): Warmer - Drier	CSIRO-Mk3.5	-6.60	-5.40	-29.80	0.94	0.95	0.93	0.96	0.91	-1.41	-1.1	-1.89

Change in 2070 (B1) with respect to 1990												
Story	Model	Mean precipitation			Mean surface temperature			Mean max surface temp	Mean min surface temp	Mean relative humidity		
		Ann	Wet	Dry	Ann	Wet	Dry	Ann	Ann	Ann	Wet	Dry
Most likely (19 models): Warmer - Little rainfall change	INM-CM3.0	-2.60	-1.15	-9.85	0.8	0.81	0.79	0.75	0.86	-0.72	-0.43	-0.92
Worst case (1 model): Warmer - Drier	CSIRO-Mk3.5	-7.07	-5.79	-31.93	1.01	1.01	0.99	1.03	0.98	-1.51	-1.18	-2.02

Change in 2070 (A1FI) with respect to 1990												
Story	Model	Mean precipitation			Mean surface temperature			Mean max surface temp	Mean min surface temp	Mean relative humidity		
		Ann	Wet	Dry	Ann	Wet	Dry	Ann	Ann	Ann	Wet	Dry
Likely (5 models): Much hotter - Drier	INM-CM3.0	-11.16	-4.94	-42.32	3.45	3.49	3.4	3.23	3.68	-3.08	-1.87	-3.96
Worst case (3 models): Much hotter - Much drier	CSIRO-Mk3.5	-30.38	-24.87	-137.18	4.32	4.36	4.26	4.43	4.21	-6.49	-5.08	-8.69

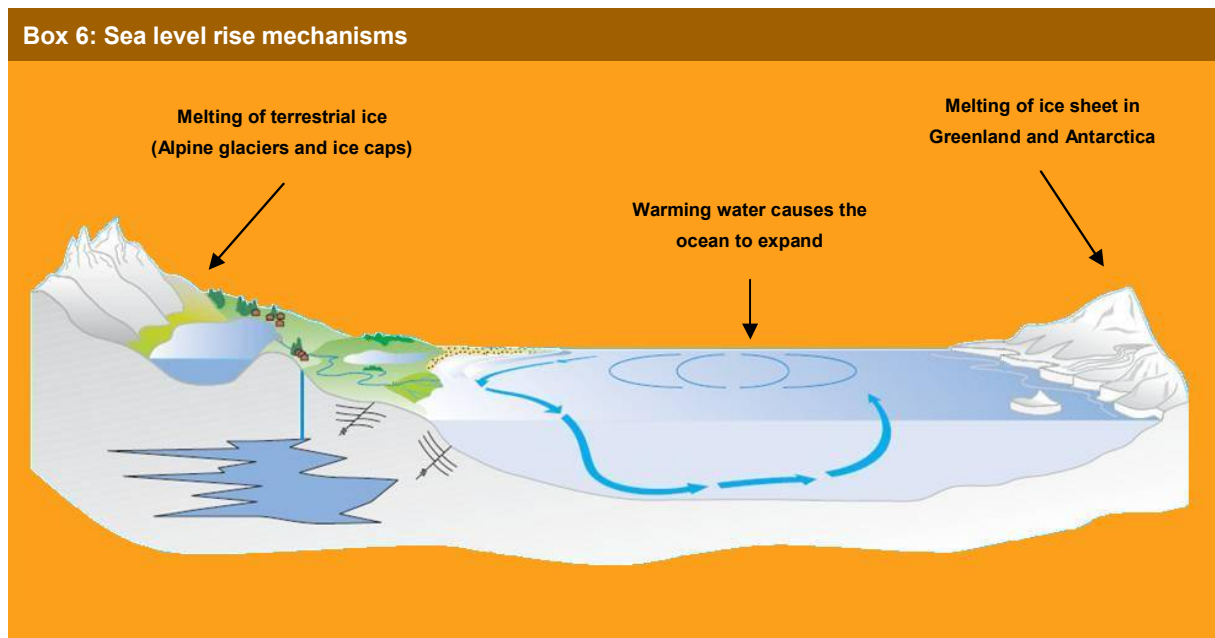
Temperature Shift



Sea Level Rise

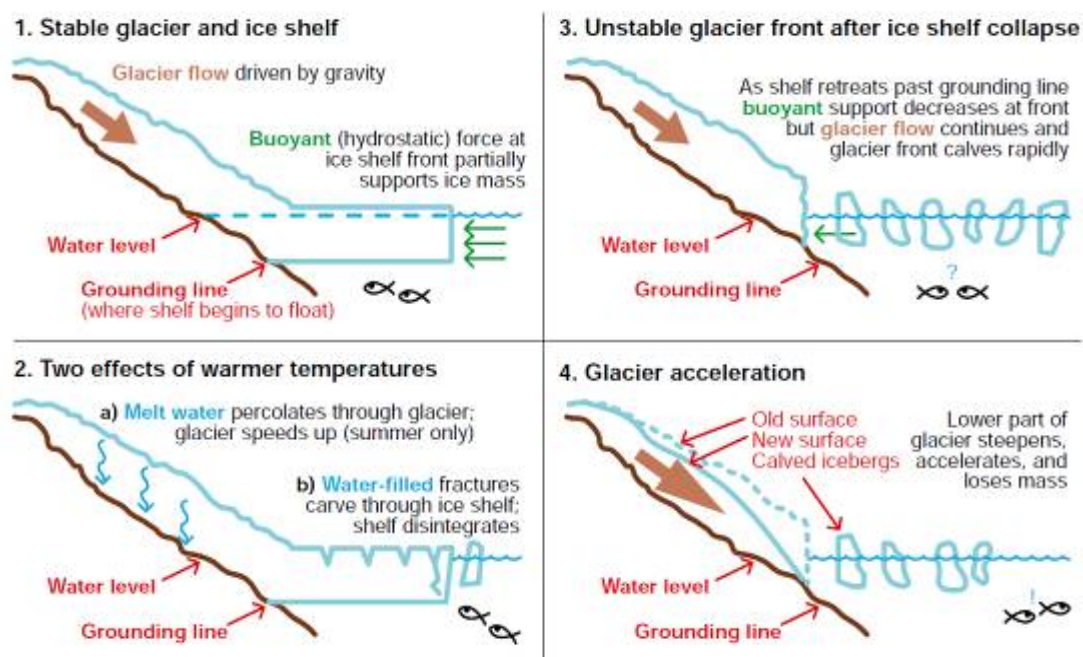
Key Mechanisms

The observed sea level rise over the last 30 years is mainly the consequence of the thermal expansion of ocean water. As the water gets warmer, it expands and the global sea level rises. The melting of alpine glaciers and icesheets (in Greenland and Antarctica) are also contributing to this rise. The box below illustrates the sea level rise mechanisms.



Glaciers and ice sheets are very dynamic environments with complex interactions and physical processes involved in their movement and melting. Researchers have recently highlighted a feedback effect where warming of the ocean and melting of ice due to warmer air temperature have the potential to accelerate the rate of melting the Greenland and Antarctica ice sheet as well as some glaciers that directly reach the sea. An overview of the process for glacier and ice shelf interactions with a warming and rising level of sea is provided in Figure 17.

Figure 17 – Glacier and ice shelf interactions and melting processes (DCCEE 2009)



Global Observations

Sea level rise has occurred at a global mean rate of 1.7 mm per year for the past century, and more recently at rates estimated near 3.1 ± 0.7 mm per year (1993-2003) (Bindoff *et al.* 2007). Current sea level rise is considered to be at least partly due to human-induced climate change which is expected to continue to increase sea levels this century. Increasing temperatures contribute to sea level rise due to the thermal expansion of water and the addition of water to the oceans from the melting of terrestrial ice sheets. The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) (2007) estimated sea level rise of 0.19-0.59 m by 2100, plus an additional 0.2 m from the potential melting of Greenland and Antarctic ice sheets.

Key developments that have occurred since the publication of the AR4 include:

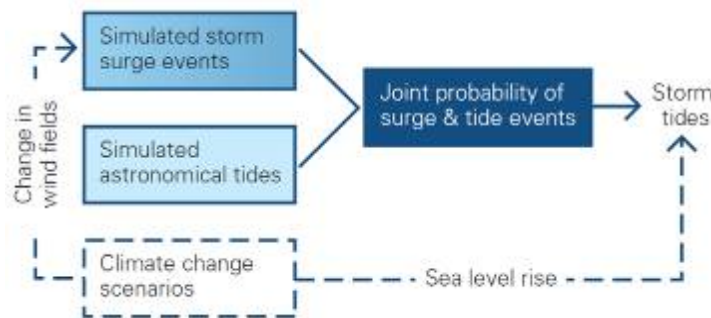
- Global emissions of carbon dioxide have accelerated rapidly since approximately 2000, consistent with the high-end emission scenarios. The Garnaut Climate Change Review suggests that global emissions will exceed the highest IPCC scenarios under a business-as-usual scenario (Commonwealth of Australia, 2008).
- Sea level has been rising at close to the upper end of the IPCC projections (Church *et al.* 2004, p7):
 - "Sea level observed with satellite altimeters from 1993 to 2006 and estimated from coastal sea-level measurements from 1990 to 2001 are tracking close to the upper limit of the TAR [Third Assessment Report] projections of 2001, which included an allowance for land-ice uncertainties. Recent altimeter measurements indicate sea level is continuing to rise near the upper limit of the projections.
 - Recognising the inadequacies of the current understanding of sea-level rise, simple statistical models relating observed sea levels to observed temperatures have been developed and applied with projected temperature increases to project future sea levels. These have generally resulted in higher sea level projections for 2100, of up to 1.4 m.
 - There are suggestions that the glacier and ice cap contributions into the future may have been (moderately) underestimated."
- Concern is escalating about the potential instability of both the Greenland and the West Antarctic Ice Sheets leading to a more rapid rate of sea-level rise than current models project. It is important to note that the uncertainties related to changes in the ice sheets are essentially one-sided: the processes can only lead to a higher rate of sea-level rise than is currently estimated (Church *et al.* 2004).
- Recent research indicates that the climate system, in particular sea level, may be responding more quickly to increasing global temperatures than current climate models projections. In particular, the IPCC were unable to exclude larger sea level rise values and there is emerging evidence suggesting the TAR may have underestimated the future rate of sea level rise (Rahmstorf *et al.*, 2007).

Storm surge and climate change

Storm tide height may be significantly affected by climate change, with changes expected to be predominantly driven by sea level rise and to a lesser extent by changes in wind speed (Department of Climate Change, 2009). Increased wind speed due to climate change may also affect storm surge and storm tide heights. These changes are affected to increase inundation risk, which is best described as the likelihood of exceeding a given level of tide, surge and flood height over a particular time horizon. Frequency is traditionally measured as average recurrence intervals. However, this approach rests on the assumption that mean sea level will remain constant. Potential future sea level rise combined with increased wind intensity means that climate change is likely to increase the frequency of extreme sea level events.

The modelling of storm surge and extreme sea levels is improving, although CSIRO advise that to provide coastal managers and planners with more detailed information to address climate change, much higher resolution data sets defining coastal topography, bathymetry and meteorology, and detailed sea level and coastal ocean observations will be required (McInnes, Grady, Hubbert 2009). CSIRO's modelling of extreme sea levels takes account of sea level rise, storm surge and astronomical tides, but not local considerations such wave set up, wave run up and erosion or accretion of beach sediments (DSE 2010). CSIRO's modelling approach is illustrated in Figure 18, which has been applied in Victoria's Future Coasts Program. Modelling is not yet available for the Wagait Shire Council.

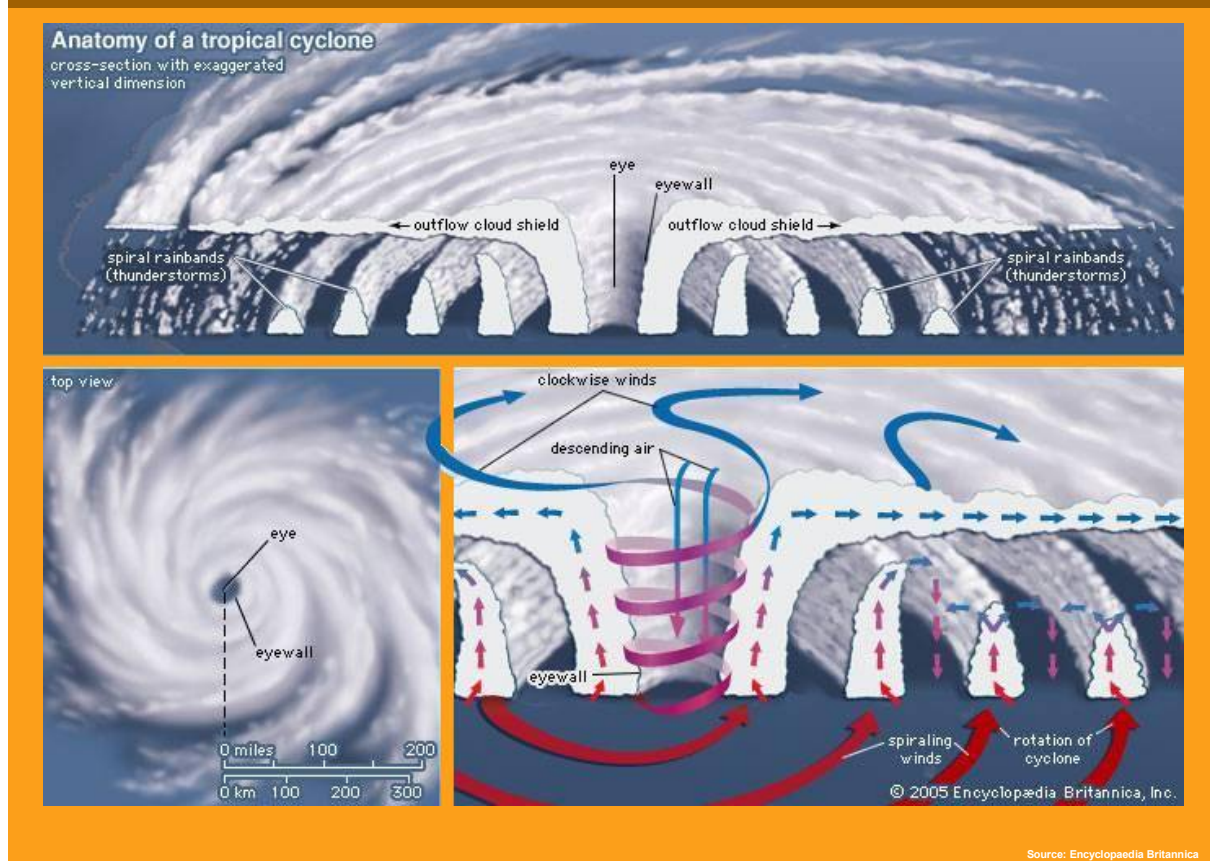
Figure 18 – An illustration of CSIRO's approach to assess potential climate change effects on extreme sea levels (DSE 2010)



Tropical cyclones

A tropical cyclone is defined as a tropical depression of sufficient intensity to produce gale force winds, i.e. at least 63 km/h. Tropical cyclones (TC) are called hurricanes in the North Atlantic and Typhoons in the North Pacific. This kind of event is not only dangerous because it produces destructive winds but also because it is associated with torrential rains (often leading to floods), storm surge and wild sea conditions. Generally, sea surface temperatures need to be at least 26.5°C to initiate a cyclone, although the cyclone can then move over colder waters.

Box 7: Tropical cyclone



Cyclones are classified depending on the speed of their winds. An example of the classification is provided in Figure 19.

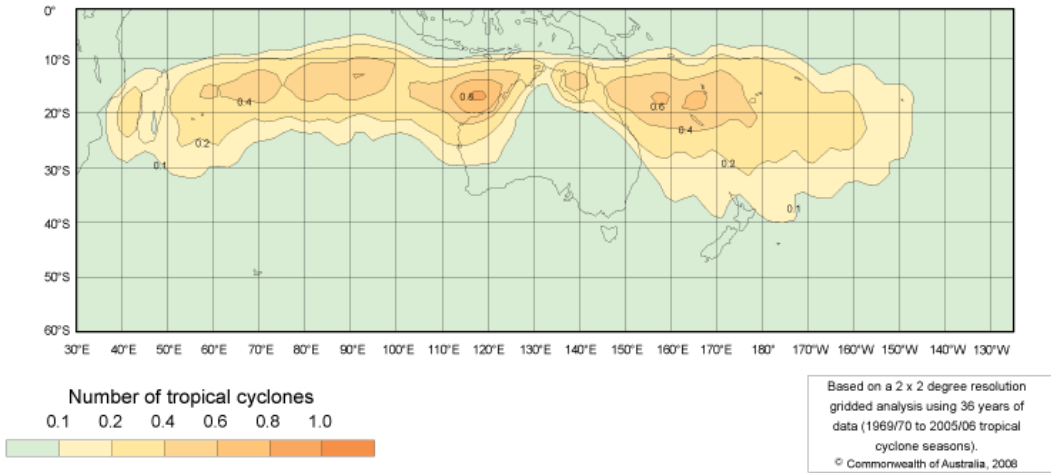
Figure 19 – Classification of the tropical cyclones based on BoM values

10 minutes sustained winds (knots)	BoM classification of tropical cyclones
< 28 (52 km/h) – 33 (61 km/h)	Tropical Low
34 (63 km/h) – 47 (87 km/h)	Tropical Cyclones (Cat. 1)
48 (89 km/h) – 63 (117 km/h)	Tropical Cyclones (Cat. 2)
64 (118 km/h) – 85 (158 km/h)	Severe Tropical Cyclones (Cat. 3)
86 (160 km/h) – 106 (196 km/h)	Severe Tropical Cyclones (Cat. 4)
107 (198 km/h) – 114 (211 km/h)	Severe Tropical Cyclones (Cat. 5)

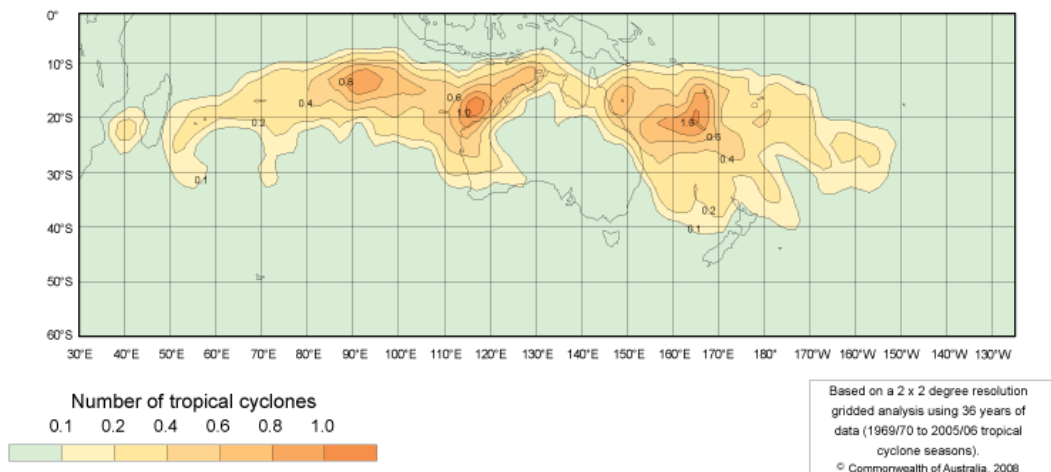
In the eastern Indian Ocean region, the tropical cyclone activity is generally enhanced during La Niña events and lowers during El Niño events. Figure 20 shows the average annual number of tropical cyclones during normal years, La Niña years and El Niño years.

Figure 20 – Cyclone frequency for all years, La Niña and El Niño years (BoM 2010)

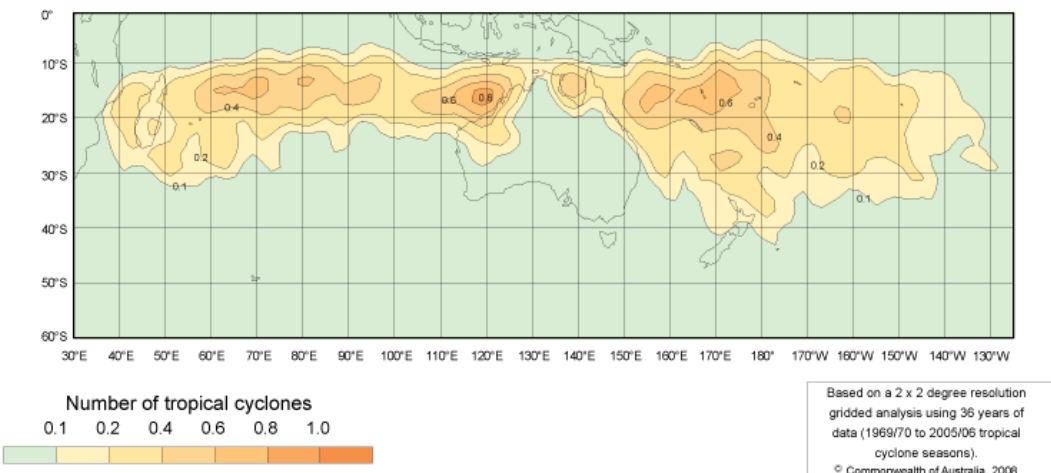
Average annual number of tropical cyclones



Average annual number of tropical cyclones - La Niña years



Average annual number of tropical cyclones - El Niño years

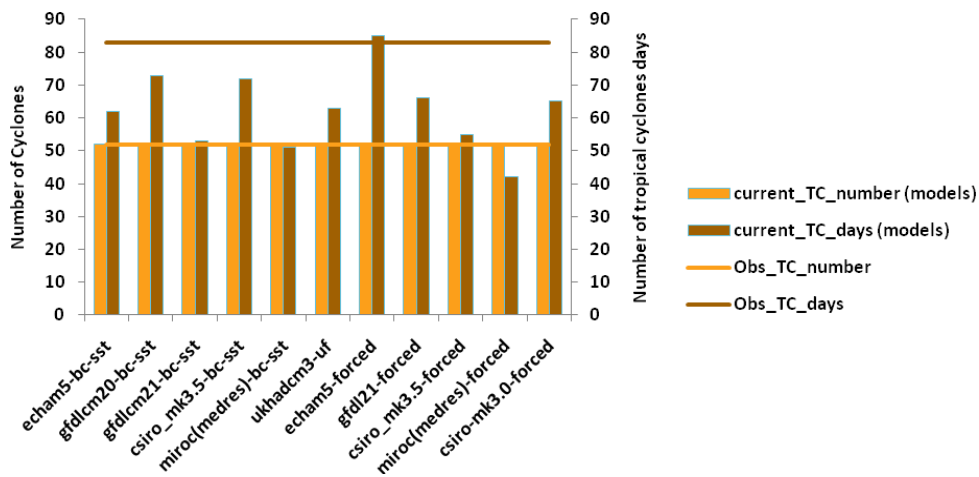


Projections

It has been assumed by scientists that in a warmer world the frequency of intense cyclones would increase. Indeed, the frequency of cyclones has increased over the North Atlantic but the trends are less clear for other cyclone regions (Indian Ocean, North and South Pacific). This is mainly because of the lack of robust data. Cyclones are a complex phenomena and their formation is the consequence of numerous factors. The sea surface temperature is important but the macro scale structure of the atmosphere also plays a significant role. Most models indicate a decrease of cyclones for 2030 and 2070. By the second half of the 21st Century, mechanisms associated with the structure of the atmosphere may induce a decrease of the cyclonic activity in this part of the world. For instance, a change in the vertical wind shear may decrease the number of cyclones formed and the life time of formed cyclones and an increase of the stability of the atmosphere would decrease the proneness to convection and to cyclone formation. CSIRO is still working to validate these assumptions and the current projections are associated with a significant degree of uncertainties.

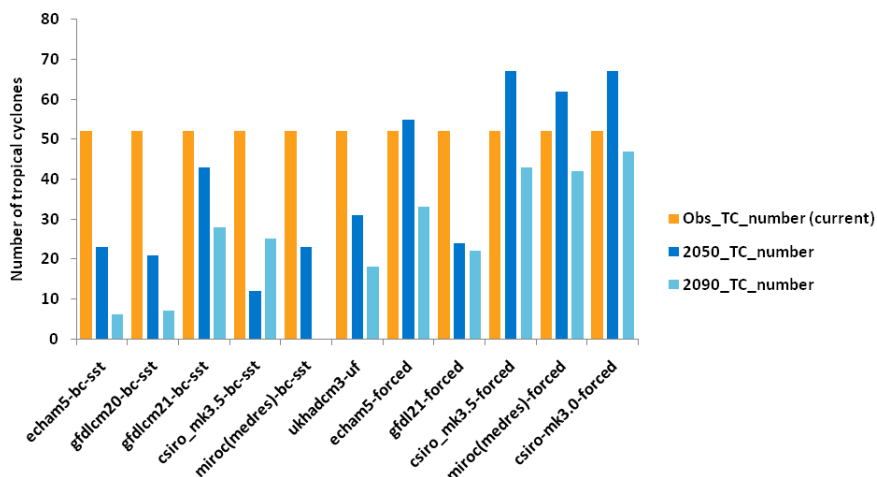
The climate models have a too large grid (200 kilometres on average) to propose an accurate evaluation of the future cyclonic activity. The projections proposed hereafter have to be considered as indicative only. They indicate direction of changes and the projected number of cyclones should not be considered as accurate forecasting of future situations. Figure 21 shows that all models have a good representation of the number of cyclone but have more difficulty representing the duration of these events.

Figure 21 – Cyclone frequency, observation vs. projections (CSIRO 2010)



As shown in Figure 22, most models indicate a decrease in the number of cyclone by 2050 and an even more significant reduction by 2090. However the proportion of intense cyclones (Category 4 and Category 5 is expected to increase).

Figure 22 – Cyclone frequency, observation vs. projections (CSIRO 2010)

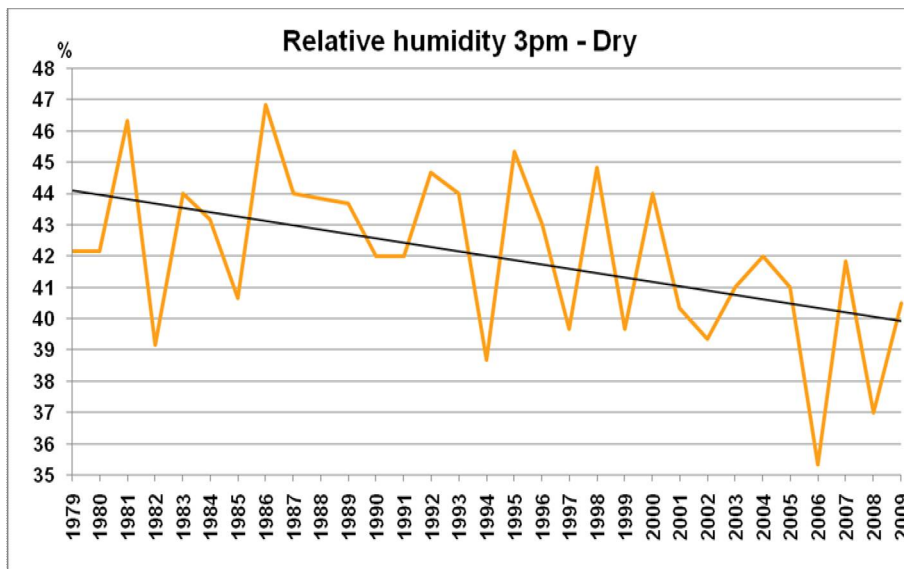
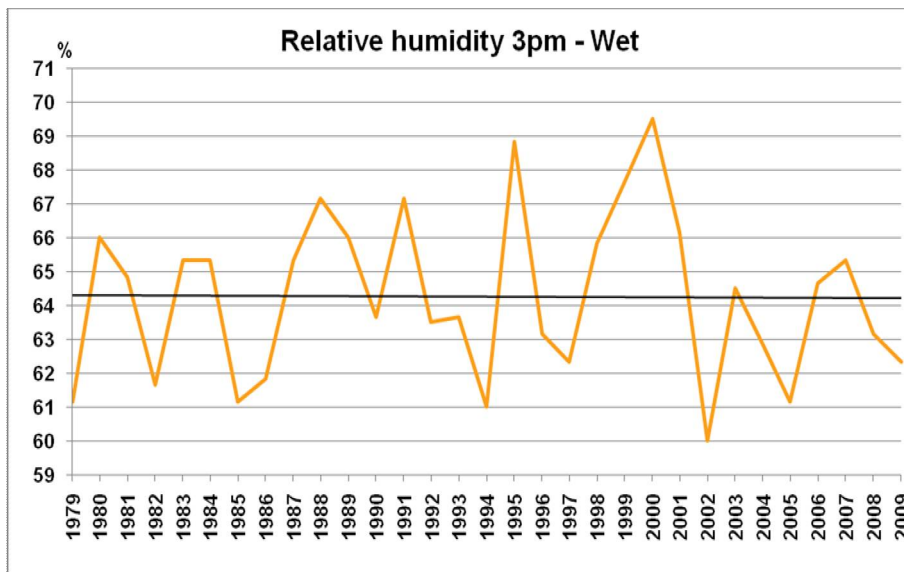
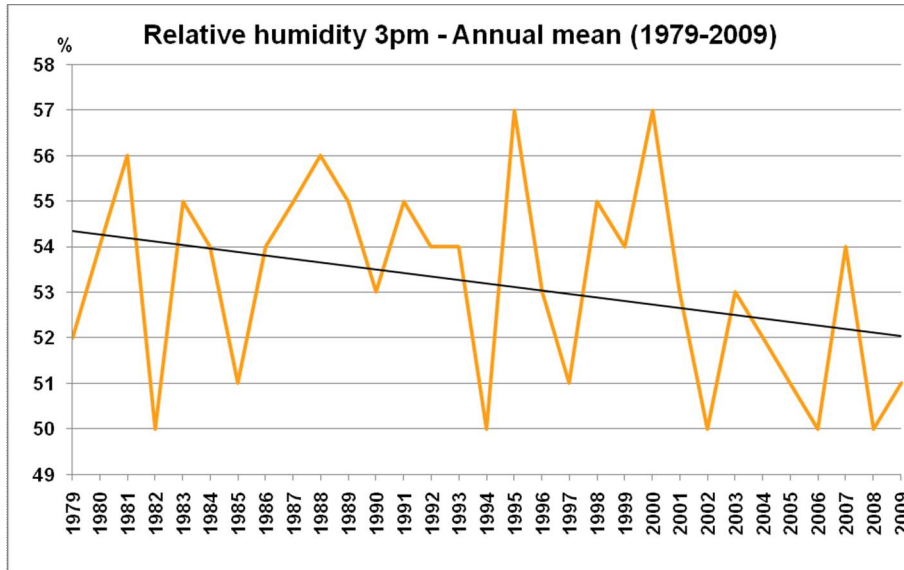


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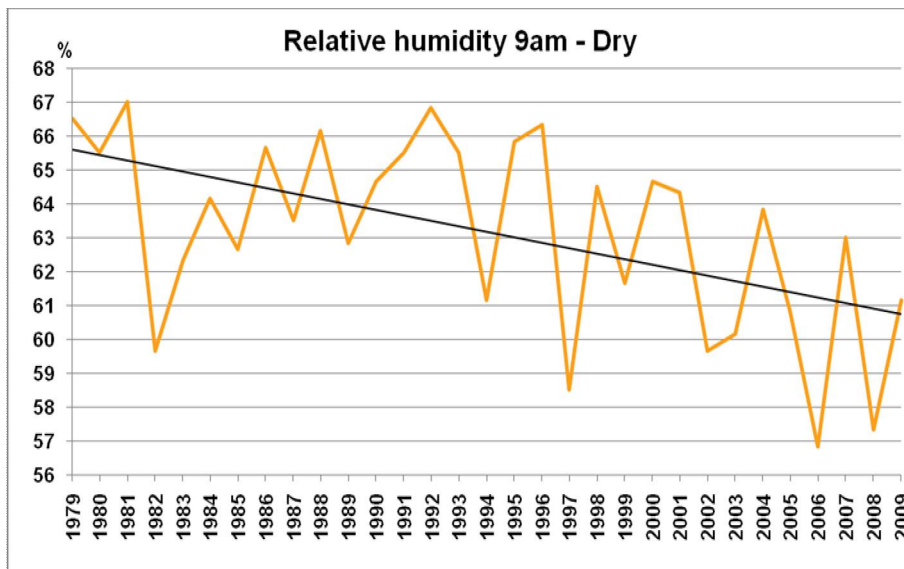
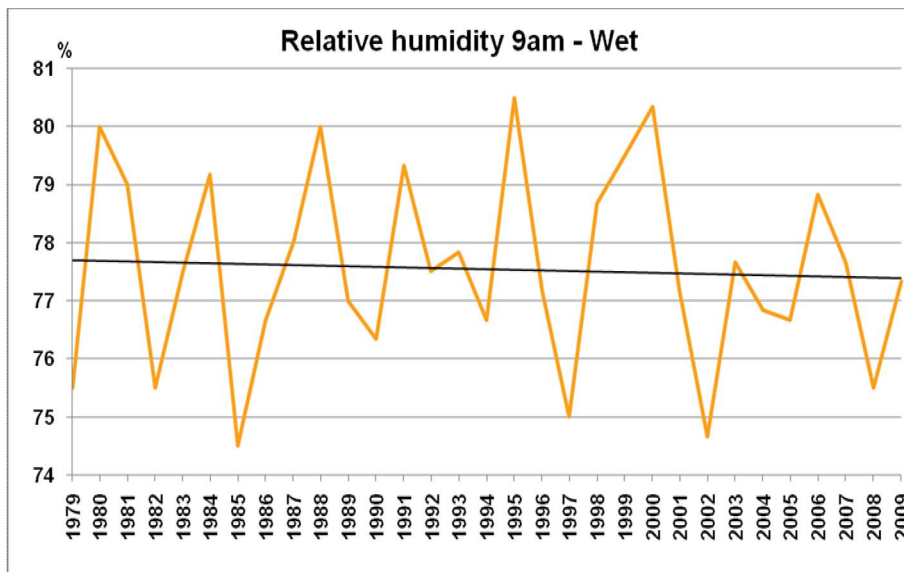
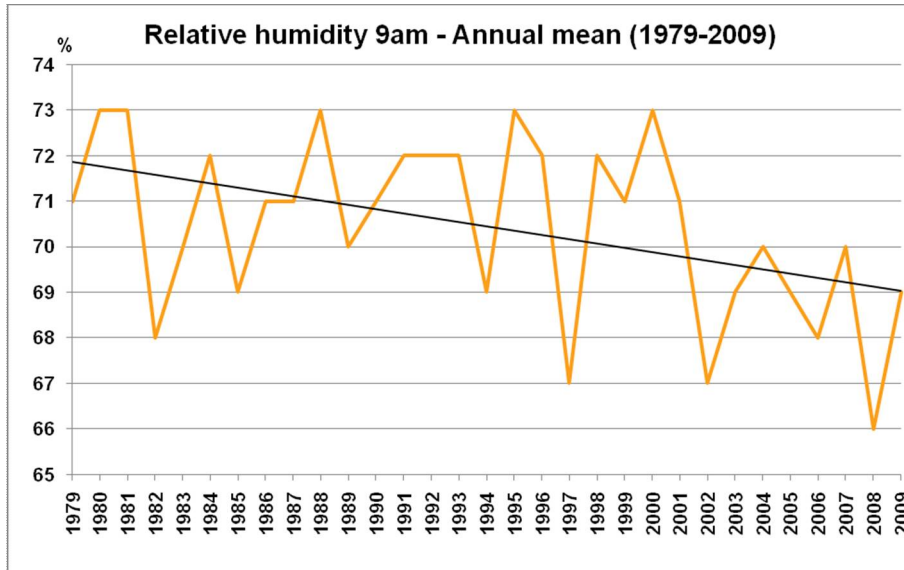
Appendix B

Climate Observations

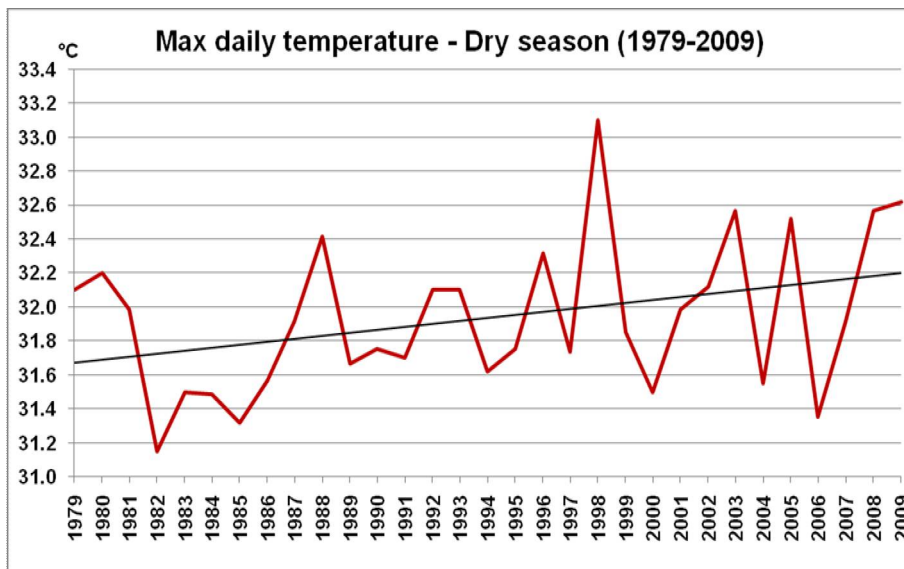
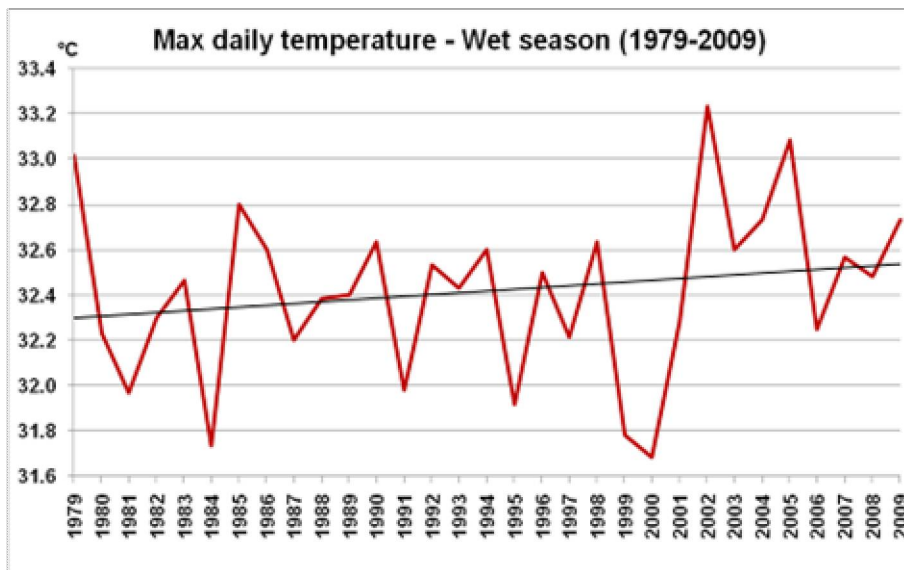
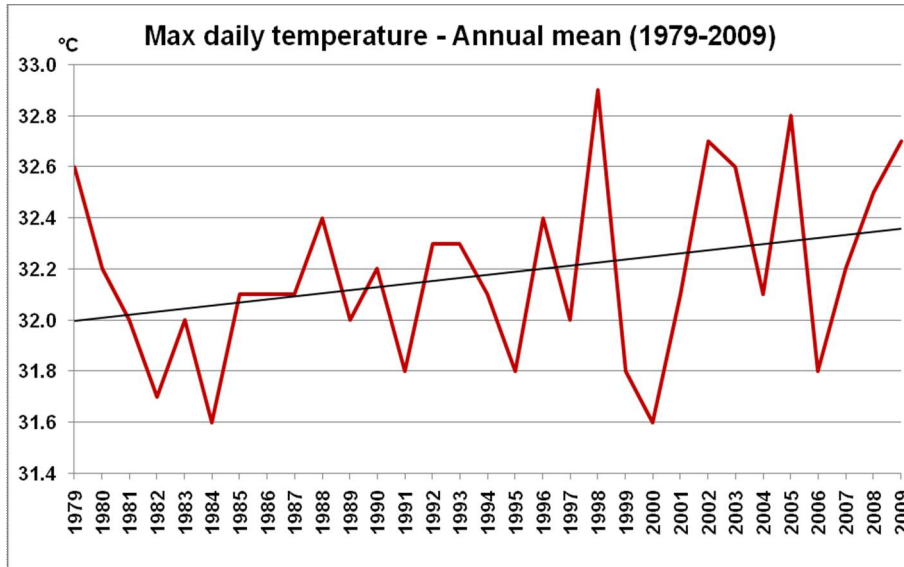
Relative Humidity 3pm



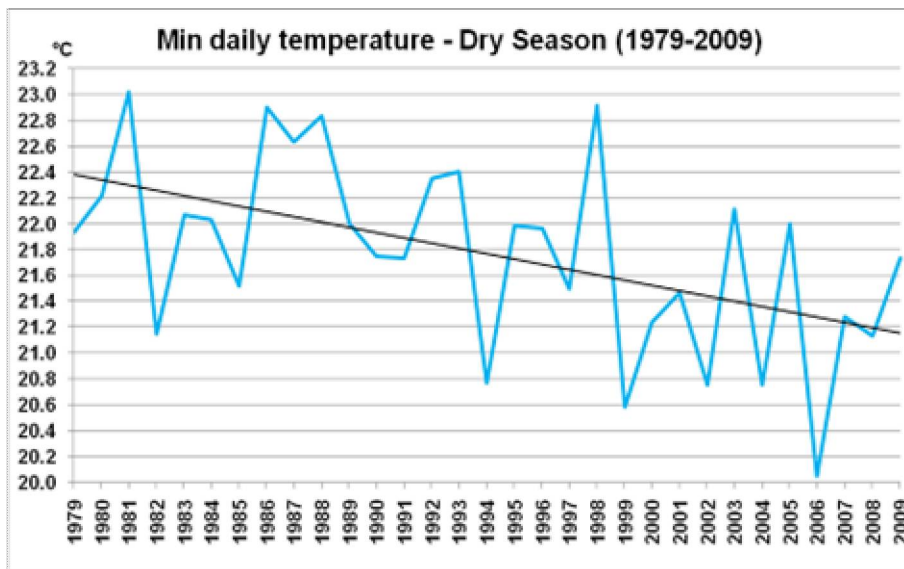
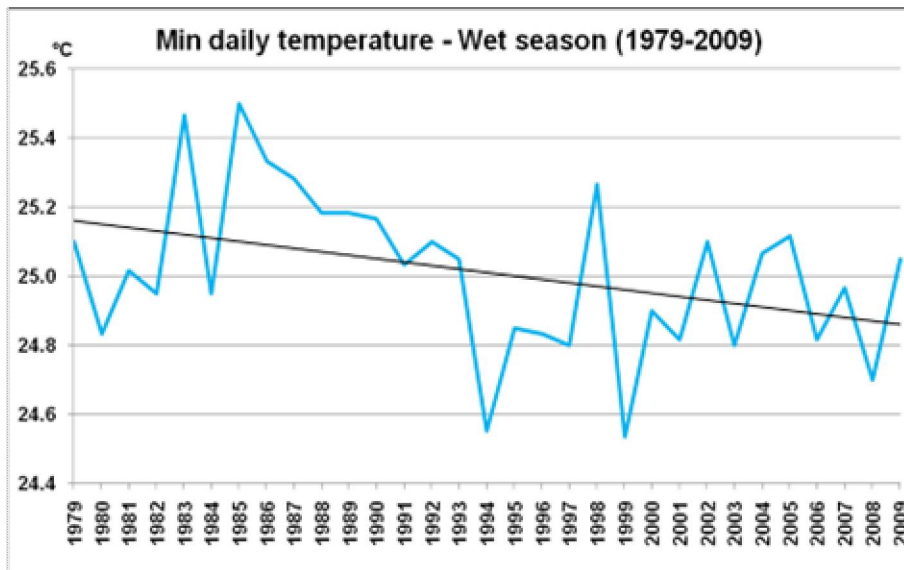
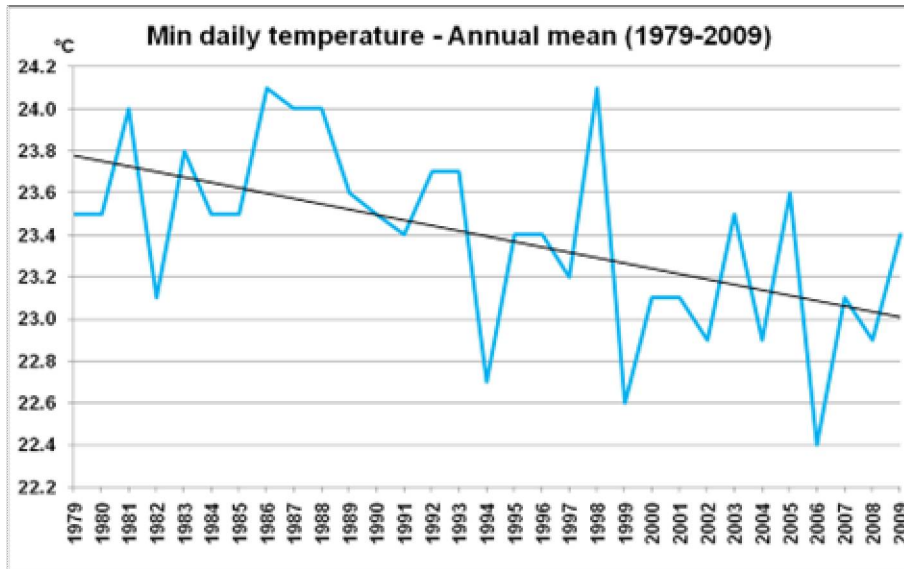
Relative Humidity 9am



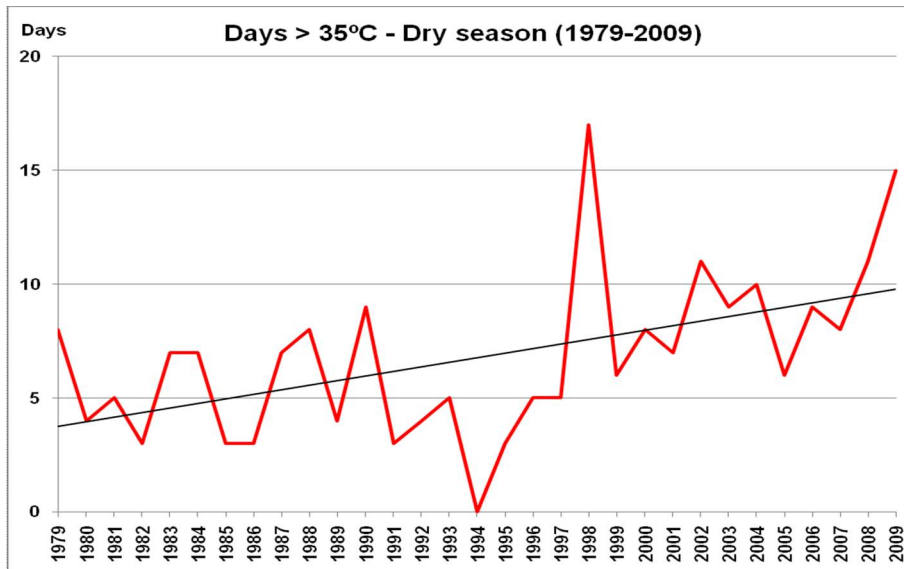
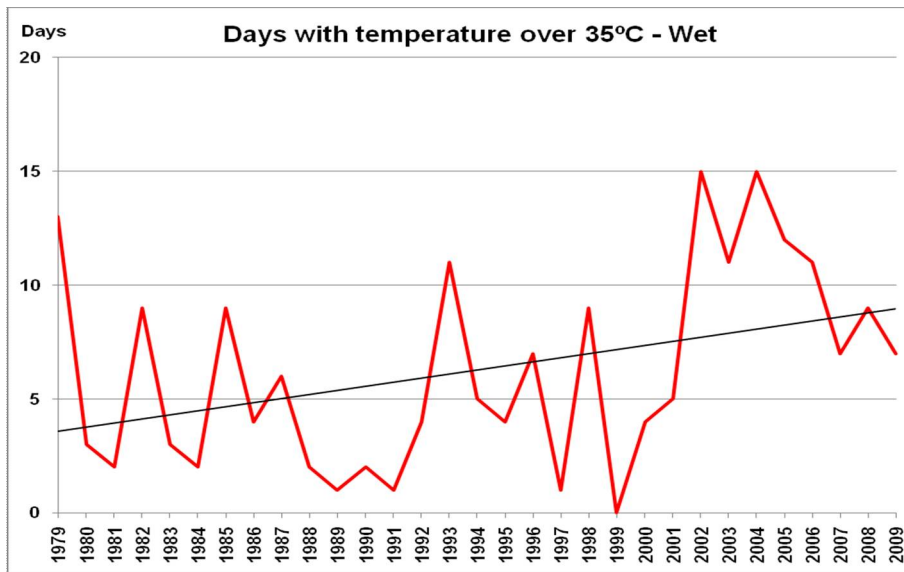
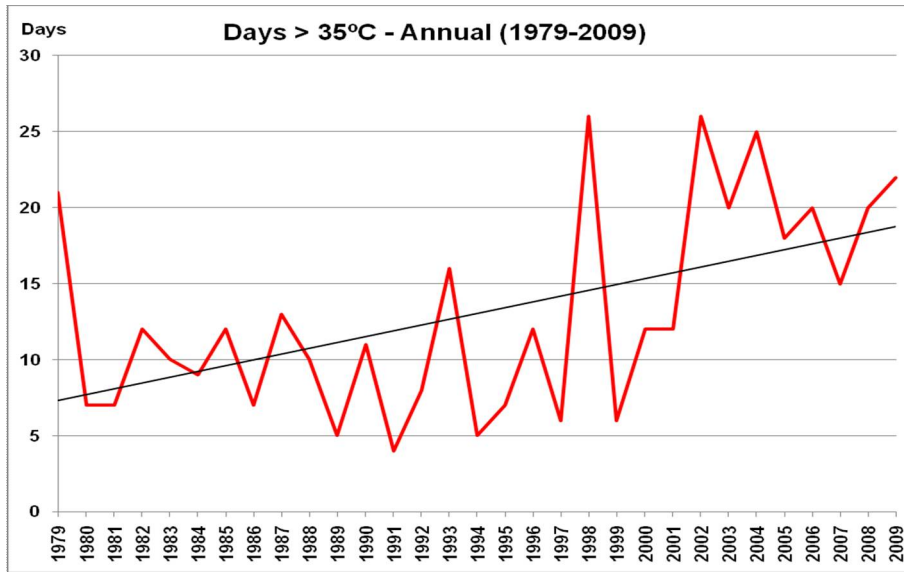
Maximum Daily Temperature



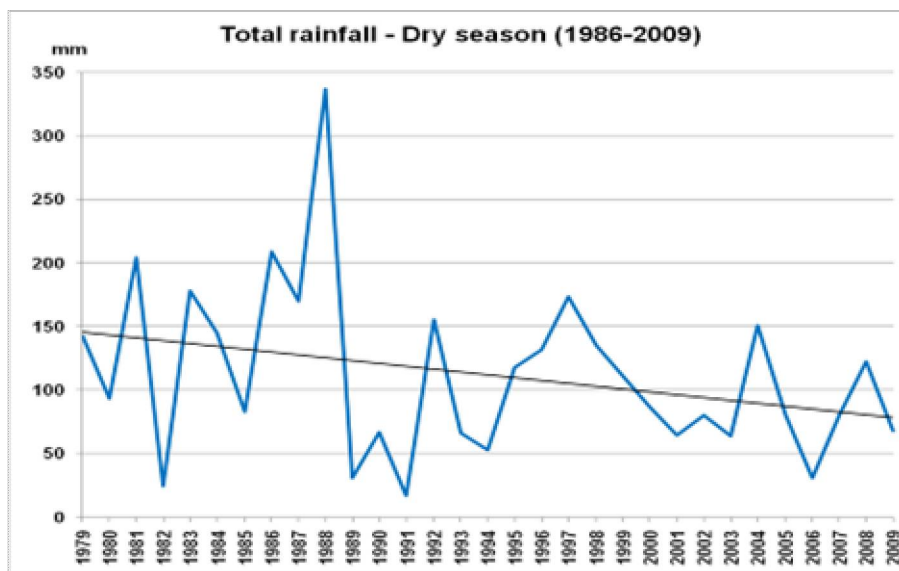
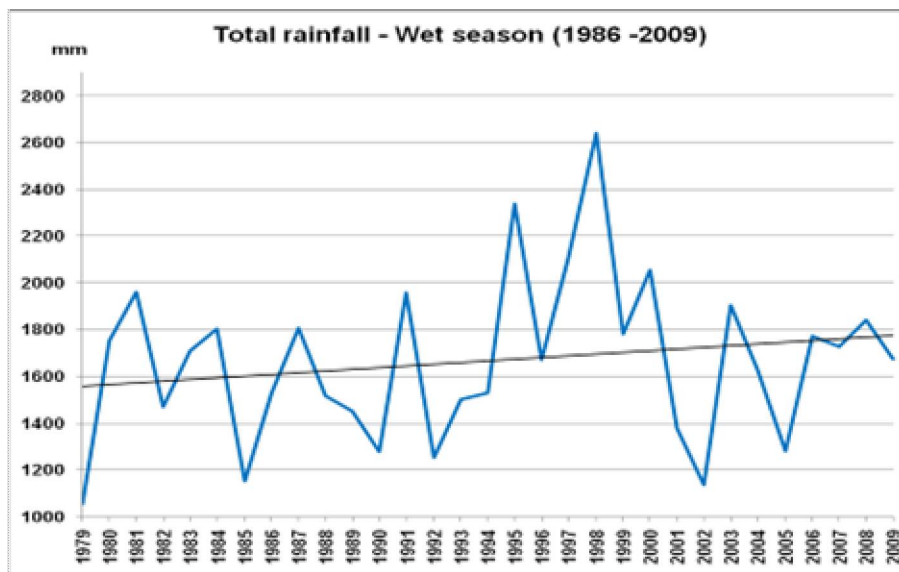
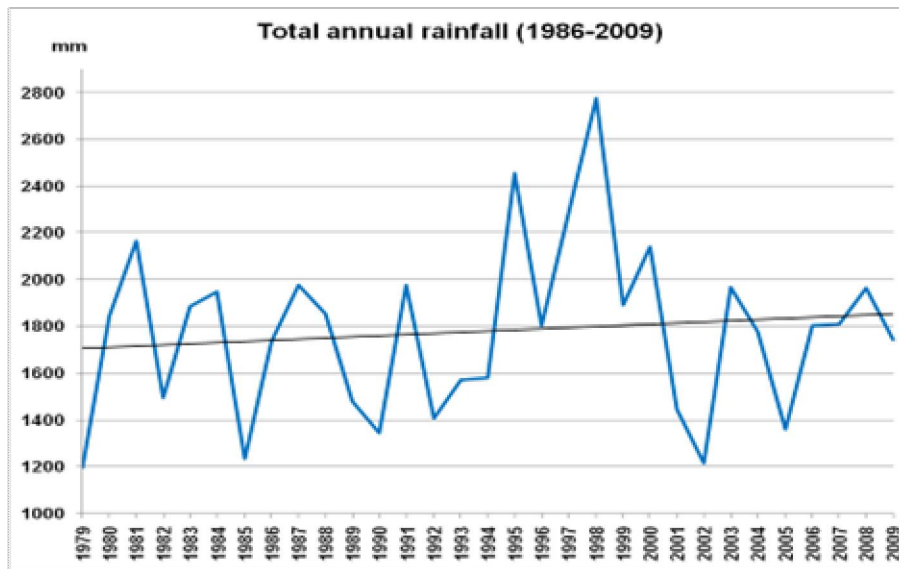
Minimum Daily Temperature




Days with temperature over 35°C



Total Monthly Rainfall



	NEW PROJECT BRIEF	
	PROJECT NAME	ACTIVATE WAGAIT
	PROJECT DELIVERABLE	OPEN DAY EVENTS & ACTIVITIES
	PROJECT TIMEFRAME	August to October 2020
	RECORD#/ REFERENCE	

1. BACKGROUND

Many well-loved annual Wagait Beach community events were cancelled as a result of Covid-19 restrictions during the first half of 2020. ACTIVATE WAGAIT will provide an opportunity for the community to come together and celebrate our place and activate many of the organisations and groups that have been forced into dormancy for a period and unable to plan their usual activities in 2020, as well as showcase some of the less known and new groups that are active in the community.

Additionally, 2020 celebrates 25 years of local government in Wagait Beach and a way to share this with the community needs to be considered.

2. SCOPE

ACTIVATE WAGAIT events and activities will be promoted through a calendar of activities, forums and opportunities designed for local residents, their friends and family from July through to October 2020. Events will be both social and strategic and are in addition to the regular activities and other planned events such as School Holiday Programs, Youth Week and Seniors Month.

ACTIVATE WAGAIT events and activities will be delivered by Council staff, community groups and volunteers at Cloppenburg Park and the Wagait Beach Community Centre and grounds.

3. PROJECT DETAILS

<i>Event</i>	<i>Proposed date</i>	<i>Venue</i>	<i>Cost</i>
Local Business Stimulus Package	1 August	Online	\$ 5000
Similar to myDARWIN, Wagait can create a voucher system to support local businesses. Support is being provided by NTG DCM with setup of the user interface and matching 1:1 funds from Council. A total of \$10 000 will go back into community businesses from consumers. The interface will remain attached to Council website for future use including as a noticeboard.			
Community Open Day	15 August	Cloppenburg Park	\$ 2500
A field day at the Park, similar to a market setup with local groups and organisations all coming together to share and showcase what they do and get people involved. Council funds would support a sausage sizzle (donations could support one of the organisations through a lucky draw or an EoI for a local group to provide this and fundraise); a local challenge footy or cricket game in the afternoon may also be possible. Knuckey Womens Centre is keen to be included as well.			

Dog Day Registration	29 August	Community Centre	\$ -
As discussed previously, a community event is planned for dog registration and microchipping provided by Parap Vet and AMRRIC supporting community education sessions, games and activities. The cost for this event is included in the budget approved from the NTG Special Purpose Grant received for implementing the by-laws.			
Belyuen to Beach Fun Run	30 August	Community Centre	\$ 2500
Wagait Beach Runners and Walkers are coordinating an open Fun Run for all ages and abilities with 14km, 8km, 4km starts. The Run will start at Belyuen and finish at the Jetty. Belyuen Sport and Recreation and the Knuckey Women's Centre are supportive of the event and the group has already made approaches to sponsors including Larrakia Development Corp and Keneallys (Wagait Tip remediation). A request for \$2500 has been made to cover cost of traffic management support and signage, which will remain property of Council for other events once procured.			
Community Campfire Dinner	September	Community Centre	\$ 2500
Community camp-fire dinner under the stars and amongst the trees with music to celebrate our 25 years of local government. Council will provide residents with a free camp-fire-oven-cooked meal with damper and seek an event licence for BYO alcohol (or seek a salespoint through EoI for a local organisation to fund-raise).			
Local Environment Strategy Forum	September	Community Centre	\$ 5000
Facilitated discussion and planning forum with community to share information and knowledge on coastal impact and care including erosion, climate change, weeds and fire management towards development of a shared local environment strategy. Other key stakeholders would include Belyuen Community, NLC, Kenbi Rangers, Larrakia Development Corporation, Heritage NT, Crown Land Office and DENR.			
Local Area Planning Strategy Forum	October	Community Centre	\$ 5000
Facilitated discussion and planning forum with community to share information and interests on future land management and critical infrastructure needs on Cox Peninsular towards development of a shared local area plan. Other key stakeholders would include Belyuen Community, NLC, Kenbi Rangers, Larrakia Development Corporation, Crown Land Office, DENR, DTBI and DIPL.			
TOTAL			\$22 500

4. BUDGET - \$22 500

Funds provided by the NT Department of Local Government, Housing and Community Development (DLGHCD) Stimulus grant (SCALE) can be used towards these activities with in-kind contributions from Council in the form of staff wages and facility support.

End

Kevin Hoult

Submission for Discussion (A)

Section 104 Restricted Use Area (RUA)

Generally:

- To address degraded conditions of Wagait and Imaluk Beaches and management of Section 104, Restricted Use Area (RUA). Refer "Cox Peninsula Restricted Use Area" Fact Sheet.
- Darwin Harbour in general has a shoreline made up of rocky cliff and shorelines that separate small sandy beaches.
- Wagait Beach community is fortunately located to enable access to beaches, Wagait Beach and Imaluk Beach at four locations, through Section 104, RUA.
- Regulation and compliance to enforce the conditions of the Act of 1983 come under the control of NT Government, Department of Land Resource Management (DLRM).
- DLRM operate out of office at Palmerston, offering at arms length administration and enforcement of the Act, Section 20C.
- All four locations are currently in very poor condition limiting access for some, the elderly, disadvantaged, mothers with small children in pushers etc? The access locations lack public appeal upkeep and maintenance – Refer photograph.
- Unfortunately the present condition of the RUA, for location can by "association" reflect poorly upon Wagait Shire Council, local community and visitors in general?

Access Locations:

- Delissa Drive– although slightly remote is but a bush track with no formal carpark/entry.
- Wagait Tower Road – Access to WWII relics, ramp to the beach for the brave only, dune top, loose sand – poor access to beach.
- Baluria Road – most popular with mothers, children and families. Loose sand to foreshore ramp, over grown vegetation, ramp to beach requires maintenance, carpark floods wet season, requires grading and reforming to drain.
- Erickson Crescent – refer photographs??
*Another Gunn Point?

Signage:

- Signage is required to direct, inform and educate in appropriate locations.

Kevin Hoult

Submission for Discussion (B)

Generally:

- To develop a small recreational area at the Baluria Street beach access area to Wagait Beach Foreshore.
- This proposal is submitted in conjunction with Submission (A) "The attached sketch proposal"
- As the proposal is located within Section 104, RUA consultation or resolution with DLRM (Department of Land Resource Management) or all other parties is obviously necessary.
- Withstanding all that, the following scope of works may be involved?

Scope of Work

- Removal of invasive vegetation.
- Formation of area, refer sketch. Carefully shaped with the minimal / no damage to primary dunes and strict approval of DLRM.
- Hard based consolidated gravel access path, carpark to beach ramp to foreshore.
- Additional tree planting to complement existing providing additional shading.
- Beach recreational furnishing, tables, benches, bins, etc.
- Appropriate signage stating conditions and safety that educate and direct.

Most necessary – formation of a regular care and maintenance programme that would ensure regular upkeep, presenting a visitor friendly community attraction.