

Tasmanian Electoral Commission
Annual Report 2014-15
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## Tenth Annual Report 2014-15

To The Honourable Jim Wilkinson,
President of the Legislative Council and

The Honourable Elise Archer,
Speaker of the House of Assembly

We have the honour to submit the tenth report of the Tasmanian Electoral Commission for presentation to the Parliament pursuant to the provisions of section 13 of the Electoral Act 2004.

The report covers the period from 1 July 2014 to 30 June 2015.

Yours sincerely
hiz Gillam
Liz Gillam
CHAIRPERSON


Julian Type
ELECTORAL
COMMISSIONER

Cy ticion
Christine Fraser
MEMBER


Local Government Elections

Legislative Council Elections 31



The Commission comprises the Chairperson, the Electoral Commissioner and one other Member.



This is a significant report for the Tasmanian Electoral Commission (TEC) as it marks ten years of operation, the first meeting of the TEC being held on 9th February 2005.

It is also timely that the Legislative Council determined to inquire into the operations of the Tasmanian Electoral Commission, with particular reference to:

- The administration of the Electoral Act 2004
- The resourcing available to the TEC
- Any deficiencies in the Electoral Act 2004
- Any other matter incidental thereto.

The TEC appreciated the opportunity to make a submission and to appear before the Committee. In doing so, the TEC highlighted its increasing level of concern for the resourcing of the Commission, now and in the longer term, and the consequential ability to meet legislative responsibilities as well as undertake the research and development necessary to keep our systems robust and deal with emerging issues and policy initiatives. Indeed, other submissions to the Committee, whilst acknowledging that the development of new programs comes at a cost, indicated that there is an expectation that the electoral processes provided by the TEC will continue to be efficient, effective and up-to-date.

The TEC awaits the Committee's findings and recommendations with interest.
In the meantime, the staff of the TEC performed splendidly through a period of very high pressure. The second half of 2014 continued the level of momentum created by the State Elections, as the TEC conducted Local Government elections for all councillors, aldermen, mayors and deputy mayors. As well as doubling the size of the task of a half-in, half-out election election, these elections were the first time the electronic count was used and it was an accolade to the staff who developed and tested this system that it ran so smoothly.

The period since the Local Government elections has been a time for reflection, review and planning, as well as the cyclical Legislative Council elections and a number of recounts and by-elections for Local Government. Christine Fraser and I wish to thank all Returning Officers and election staff for their work but in particular all TEC staff, under the fine leadership of Julian Type, for their magnificent efforts over the past twelve months.

## Liz Gillam

## CHAIRPERSON

TASMANIAN ELECTORAL COMMISSION

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\begin{aligned}
& \text { Electoral } \\
& \text { Commissioner's } \\
& \text { Review }
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$$

During 2014-15, the TEC conducted the first "all-in, all-out" elections for Tasmania's 29 local government Councils. This reform, while providing cost savings and greater continuity for Councils, presented significant logistical challenges, with 482 candidates contesting 263 councillor positions, and 91 and 143 of those respectively contesting the 29 mayoral and deputy mayoral positions.

The TEC successfully developed Computer Count to automate the count of the ten most complex councillor (alderman) elections. Although there were isolated comments that the Computer Count elections took longer than they had in the past, all were completed on schedule by the Saturday following the close of polls, and days ahead of manual counts of such an order of complexity.

Elections managed using Computer Count compare favourably to manual counts on costs to Councils, and have the additional advantage of fully automated recounts to fill casual vacancies (used for the first time just beyond the reporting period). The TEC thanks the University of Tasmania for the use of computer laboratories at their Hobart and Launceston campuses: the availability of data entry facilities is a constraint on the more widespread use of the system in future years.

We also refreshed our candidate information materials for the 2014 elections, publishing photographs of candidates, requiring on-line submission of their statements, and limiting candidates contesting two positions to a single statement. We trust this made for a more attractive and accessible tool for voters.

The participation rate rose slightly from $54.28 \%$ to $54.58 \%$ from 2011 to 2014, and remains a testament to a high level of engagement by Tasmanian voters with their local Councils.

Periodic elections for the Legislative Council divisions of Derwent, Mersey and Windermere were conducted in May 2015. Unfortunately, participation fell by comparison to 2009 in all three divisions, to a weighted average of $81.21 \%$. While participation is not "falling off a cliff", the rate for electors aged under 35 is a cause for concern and suggests that both the TEC and the Legislative Council have some work to do to maintain the profile of our rotational upper house electoral system.

During 2014-15, the TEC also conducted triennial elections for the Aboriginal Land Council of Tasmania. It was an honour to be welcomed to Cape Barren Island for a meeting of elders to receive advice relating to my statutory duties under the Aboriginal Lands Act 1995.

The Legislative Council Government Administration Committee B commenced an inquiry into the Tasmanian Electoral Commission during 2014-15. The TEC has been pleased to assist the committee's work and looks forward to its report.

I have notified Her Excellency the Governor of my intention to retire in February 2016. It has been an honour to carry the baton as Tasmania's second electoral commissioner, and I thank all my colleagues over more than three decades for their support and for their dedication to rule by the people.

## Julian Type

ELECTORAL COMMISSIONER


Here are oun office staff. and some of our casuals.



This 10th Annual Report of the Tasmanian Electoral Commission (the Commission) covers the period 1 July 2014 to 30 June 2015. It is submitted pursuant to section 13 of the Tasmanian Electoral Act 2004.

Separate election reports, including full statistical details of elections, will continue to be submitted. Special reports on electoral issues may also be submitted from time to time.

Although the Commission is a statutory body, corporate support is provided by the Department of Justice and full financial and staffing reports are included in the Department of Justice Annual Report.

## Aboutthe Trasmnanian Electoral Commission

## Functions and Powers

The following functions and powers of the Commission are specified in section 9 of the Act.
(1) In addition to the functions conferred on it by any other provisions of this Act or any other Act, the Commission has the following functions:
(a) to advise the Minister on matters relating to elections;
(b) to consider and report to the Minister on matters referred to it by the Minister;
(c) to promote public awareness of electoral and parliamentary topics by means of educational and information programs and by other means;
(d) to provide information and advice on electoral issues to the Parliament, the Government, Government departments and State authorities, within the meaning of the State Service Act 2000;
(e) to publish material on matters relating to its functions;
(f) to investigate and prosecute illegal practices under this Act.
(2) The Commission may do all things necessary or convenient to be done, including employing persons, for or in connection with or incidental to the performance of its functions.
(3) Without limiting subsection (2) and in addition to any power conferred on the Commission by any other provision of this Act or any other Act, the Commission, in addition to conducting Assembly elections or Council elections may conduct ballots or elections for a person or organisation and may charge fees for that service.

## Responsibilities of the Commission

 andCommissioner

The Commission, and the Electoral Commissioner, have statutory responsibilities for the independent and impartial conduct of Tasmanian elections and referendums.

The Commission and the Australian Electoral Commission (AEC) jointly manage and maintain the electoral rolls for federal, state and local government elections.

The Electoral Commissioner is a member of the Electoral Council of Australia and New Zealand.

The Act provides for a range of approvals, appointments and determinations to be made by the Commission, the Electoral Commissioner or returning officers.

The Commission met fifteen times during the year. A list of all Commission approvals, appointments and determinations made between 1 July 2014 and 30 June 2015 is shown in Appendix A. These approvals, appointments and determinations are available for public inspection at the office of the Commission and

## Approvale,

 Appointments andDeterminations are available on the website.

## Legislation

The Commission and the Electoral Commissioner have legal responsibilities under the following legislation:

- Electoral Act 2004
- Electoral Regulations 2005
- Local Government Act 1993
- Local Government (General) Regulations 2015
- Juries Act 2003
- Legislative Council Electoral Boundaries Act 1995
- Aboriginal Lands Act 1995
- Water Management Act 1999


## Electoral

 EnrolmentAn up-to-date and accurate electoral roll is an essential prerequisite for the conduct of elections. The State of Tasmania and the Commonwealth of Australia have an arrangement for the management and maintenance of a joint Tasmanian roll.

Under section 40 of the Electoral Act 2004, the Tasmanian roll is provided to Members of Parliament, registered parties and other organisations approved by the Commission.

Eligible Tasmanians are able to enrol to vote in federal, state or local government elections, or change their details on the electoral roll, by completing a single joint enrolment form.

All electors enrolled on the State roll are entitled to vote at the local government elections for the municipal area in which their enrolled address is situated. Other individuals who are over the age of 18 and are owners or occupiers of land in the municipal area may be entitled to be on a supplementary electoral roll kept by the council's General Manager.


## Enrolment

 ManagementThe national roll is jointly managed by the AEC and State electoral authorities. The Electoral Commissioner represents the TEC at regular meetings of the Electoral Council of Australia and New Zealand which regularly discusses strategies for maintenance of the electoral roll.

At year's end, Tasmanian enrolment stood at 366 991, or an estimated $95.1 \%$ of the eligible population. This rate was the second highest of the eight Australian jurisdictions and compares to a national rate of $93.2 \%$.


Significant EWCnts off



Tasmania's local government elections commenced on 13 September 2014, with the publication of the notice of election in the three daily Tasmanian newspapers. These were the first all-in, all-out elections since the enactment of legislation in 2013 which brought major changes to the conduct of local government elections : see Appendix D for a summary of these changes.

Elections were held in all 29 municipal areas for mayors, deputy mayors and a total of 263 councillor/alderman positions.

Nominations closed at 12 noon on Monday 29 September, with 476 individual candidates ( 338 men and 138 women) standing for councillor, 91 candidates standing for mayor and 143 standing for deputy mayor.

As only eight candidates had nominated for nine positions on Latrobe Council by noon on 29 September 2014, those candidates were declared elected. New nominations were then called for one unfilled position, and these closed at noon Monday 6 October. Six candidates ( 5 men and 1 woman) nominated for the single position.

This brought the state-wide total of individual candidates to 482 ( 343 men and 139 women).

A total of 375355 electors were enrolled in the 29 councils at the close of rolls at 6 pm on 18 September. These comprised 366398 ( $96.61 \%$ ) from the State roll and 8957 (2.39\%) from general managers' rolls.

Similarly to Tasmanian Parliamentary elections, candidate names are rotated on ballot papers. 1,262 different ballot paper rotation combinations were produced for these elections.

Progressive results were regularly posted on the TEC website from 5:30pm on Tuesday 28 October. A tally-room was set up at Tattersall's Park, with the media, candidates and the general public all invited to attend. Progressive results were also displayed at other counting centres in Launceston and Devonport.

## Operations Strategy

With such major changes to local government election arrangements in 2014, many operational aspects were reviewed and updated. These elections involved the following operational processes:

- a three day election conference for returning officers and other election staff;
- liaison with councils providing election services;
- comprehensive training of electoral staff within the AEC and the TEC;
- the development of the Computer Count data entry and counting software; and
- the provision of 'express voting' for Tasmanians travelling overseas or interstate.

See the Innovations section and Appendix E for more details.

## Commennications

## Strategy

A broad-reaching communication strategy was developed to deliver important election information to electors, candidates, the media and other interested parties in engaging, contemporary and accessible ways. The strategy incorporated the following elements:

- a new cross-media integrated advertising campaign
- "Make Your Mark - Vote Local";
- a redesign of the style and structure of the TEC website;
- a revamp of the candidate statement booklet sent to all electors;
- a new animation, to help explain the unique process of postal voting at Tasmanian local government elections;
- an update of the TEC 'Elections Tas' smartphone app; and
- regular media releases emailed to media outlets.

Please see the Innovations section for further details.


## 亿egislative



Elections

On 30 March 2015, writs were issued for Legislative Council elections in the divisions of Derwent, Mersey and Windermere. Eamon Gilligan, of the TEC, and Anne Scott, an experienced electoral official, were appointed as returning officers for these elections.

8 candidates ( 5 men and 3 women) nominated.
Early voting was again available in all AEC offices around the country as well as the offices of other State and Territory electoral authorities. Electors located overseas or in remote areas during the election period could apply for an express vote.

Craig Farrell was re-elected as the Member for Derwent, Mike Gaffney was re-elected as the Member for Mersey and Ivan Dean was re-elected as the Member for Windermere.

Legislative Council election results are provided in Appendix B.

## Launceston

## Satellite Office

The TEC established a satellite election office in Launceston as this was the first time since 1996 that AEC staff were not appointed as returning officers. Due to the close proximity of the two northern divisions going to election, Anne Scott was appointed as returning officer for both Mersey and Windermere divisions.

An office space directly above the Launceston AEC office was leased from mid March to mid May. This reduced confusion for voters as receipt of nominations and early voting were within the same building.

Setting up the satellite office involved establishing a broadband connection and purchasing and setting up new network hardware. The new VOIP telephone system enabled the satellite office to be connected to the TEC phone system, which included phone coverage during busy periods.


## Prepoll Centrie

## Vi-Voteservice

Gemerara enquiries



## 凡and




Elections
During 2014-15, the TEC conducted Aboriginal Land Council of Tasmania (ALCT) elections in accordance with the Aboriginal Lands Act 1995.

The Council consists of 8 Aboriginal persons, 2 representing each of the South, North and North-West regions, and one representing each of the Flinders Island and Cape Barren Island groups.

The Electoral Commissioner's responsibilities under the Act include consideration of any objections to the transfer of the name of a person from the Preliminary Roll to the continuous Electors Roll, and acceptance or rejection of any such objections.

73 people applied to be on the Preliminary Roll, with 3 of those persons having objections lodged against their inclusion on the roll. Those objections were accepted, and a total of 70 applicants were transferred to the Electors Roll, bringing the total number of electors on the Roll as at January 2015 to 536.

## Election Timetable

Preliminary Roll close:
Preliminary Roll may be inspected from:
Close of objections to enrolments:
Objections accepted or rejected by:
Nominations open:
Nominations close:
Ballot papers posted to electors:
Close of ballot:

5 pm Thursday 2 October 2014
Monday 13 October 2014
5 pm Monday 10 November 2014
Tuesday 16 December 2014
Saturday 14 March 2015
12 noon Friday 22 May 2015
Monday 1 June 2015
10 am Tuesday 23 June 2015

## Results

The following persons were elected to the ALCT for a three-year term of office, to represent the areas shown:

| Cape Barren Island group | John Gardner (elected unopposed) |
| :--- | :--- |
| Flinders Island group | 1 position vacant |
| North region | Clyde Vincent Mansell |
|  | Sharon Lola Holbrook |
| North-West region | Sharon Dennis (elected unopposed) |
|  | 1 position vacant |
| South region | Aaron Boyd Everett (elected unopposed) |
|  | Sara Maynard (elected unopposed) |

By-elections were required to fill the vacant positions in the Flinders Island Group and North-West region, with the Electoral Commissioner expecting to call for nominations in early July 2015.

ALCT elections are next due in 2017-18.

## By-clections @id Recoumts

## House of Assembly elections

On 9 June 2015, the TEC conducted a recount to fill the vacancy in the House of Assembly for the division of Bass created by the resignation of Kim Booth.

Six candidates nominated for the recount: Andrew Connor of the Australian Labor Party; Brian Lockwood Gunst, Mark Edward Hines and Tim Parish of the Palmer United Party; Andrea Dawkins of the Tasmanian Greens; and the ungrouped candidate Brett Edward Lucas. (Party affiliations were as at March 2014.)

Andrea Dawkins was elected as a member of the House of Assembly for the division of Bass until the next general election. Details of the recount are provided in Appendix C.

## Local Government elections

During 2014-15 the TEC conducted recounts to fill councillor vacancies on the Break O'Day and Southern Midlands councils. In addition, by-elections for mayor and councillor vacancies on the Dorset council and recount process for a Launceston City council alderman vacancy, commenced in June 2015.

Full details of all local government elections including recounts can be found on the TEC website.

## Legisletive Council Inquwiry

On 6 November 2014, the Legislative Council Government Administration Committee 'B' determined to inquire into and report on the operations of the Tasmanian Electoral Commission with particular reference to:

- the administration of the Electoral Act 2004;
- the resourcing available to the Tasmanian Electoral Commission;
- any deficiencies with the Electoral Act 2004;
- any other matters incidental thereto.

The Tasmanian Electoral Commission made a submission, dated 25 February 2015, and appeared before the Committee on 1 June 2015.

## Assistance to other Electoral Authorities

The TEC assisted other Australian electoral authorities by issuing pre-poll votes for their elections at the Commission office in Hobart. Votes were issued for the following elections:

- Queensland state election
- New South Wales state election
- Victorian state election
- South Australian by-election for the division of Davonport
- Victorian by-election for Gippsland South


## Party Register

As at 30 June 2015, the following parties were registered under the Electoral Act 2004 (in alphabetical order):

- Australian Christians
- Australian Labor Party
- The Liberal Party of Australia, Tasmanian Division
- Palmer United Party
- Socialist Alliance
- Tasmanian Greens

During the year 2014-2015, the Tasmanian Electoral Commission received an application to cancel the registration of the National Party of Australia - Tasmania. The application, received on 21 November 2014, was then advertised in a notice in the Gazette and in the Mercury, Examiner and Advocate on 26 November 2014.

No objections to the cancellation were lodged within the 30 day period required under legislation, and the Commission deregistered the party on 4 February 2015.

## Other Elections and Ballots

The TEC conducted the following nonparliamentary elections:

- elections required under the Water Management Act 1999
- Liberal Party Senate Selection Committee
- Local Government Association of Tasmania
- St Helens RSL Club
- Shearwater Country Club
- Tasmanian Council of Social Service (TasCOSS)
- Tasmanian Pacing Club
- Tasmanian Principles Association
- Tasmanian Seafood Industry Council
- Tasmania University Union (TUU)

The TEC conducted the following industrial ballots:

- Forestry Tasmania
- Hanson (Heidelberg Cement Group)
- Hobart City Council
- Tasmanian Health Organisation - North
- Veolia Environmental Services

Fees are charged for these services.


# Ininovations 



## 2014 Local

Goverinment
Elections
Innovations

## Computer Count

As a consequence of the changes to local government elections, the TEC identified that the counting of ballot papers for some of the larger councillor elections was too complex to complete manually. The TEC was allocated $\$ 350,000$ seed funding by the State Government to develop a computerised counting system.

The Victorian Electoral Commission (VEC) provided to the TEC a royalty free copy of their Computer Count software that could be modified for Tasmanian local government elections. Details of the development of this program are provided in Appendix E.

The data entry process was undertaken at University of Tasmania campuses in Hobart and Launceston. Of the 198483 returned councillor ballot papers, 118733 were data entered into the system.

The new system produced accurate and timely election results, given the complexity and size of the 10 ballots that were counted using Computer Count. For example, comparing the statistics from the 2011 and 2014 Hobart Councillor elections:

- the number to be elected rose from 7 to 12;
- the number of candidates rose from 18 to 30 ;
- the number of counts rose from 43 to 90;
- at the point where Mao Ding was excluded (following count 78 in the 2014 election) only 3.60 votes separated Tanya Denison (1017.71) and Mao Ding (1014.11). Tanya Denison was later elected.


## New Advertising

## Campaign



To make your mark, you need to get your vote in on time.

MARE WUR MAKK
VOTE LOCAL

## Animation

Following the success of two animations created for the House of Assembly elections, the TEC again commissioned local creative marketing agency Small Island Studios. The brief was to create an animation which helped to explain the process of postal voting at Tasmanian local government elections in a fun and engaging way. The "Ballot of Power" animation was promoted on the TEC website and facebook page and in other advertising, being viewed over 1,500 times.

MAKE YOUR MARK

Advertising agency Clemenger Tasmania successfully tendered for a new integrated cross-media advertising campaign for the 2014 local government elections with the primary aims of increasing awareness and encouraging participation.

The "Make your Mark, Vote Local" is a strong and creative campaign that links community services and involvement to voting participation. The campaign uses the visual element of a pencil marking the vote and then flowing on to hand drawn images of typical local government activities.

The campaign utilised television, radio, press and digital advertisements.


## Candidate Statements

The 2014 local government elections saw the introduction of an on-line system for the submission of all candidate statements. Candidate statements are not compulsory for a valid nomination, but the majority of candidates do submit a statement.

As part of this process candidates were invited, for the first time, to submit: a recent passport-style photograph for publication with their candidate statement; and a web link to be published on the TEC's website (at the discretion of the Electoral Commissioner).

Statements were submitted by candidates through the TEC website on a secure on-line form, with each candidate then receiving an automatically generated email containing the details of what they had submitted. Phone assistance was available through the TEC 1800 number (during business hours) for candidates with queries about the online form.

All statements were required to be received by the TEC before the close of nominations at 12 noon on 28 September 2014.
For the first time at these elections the voting information, instructions and candidate statements for each council were published all together in one small booklet (to fit a DL sized envelope), rather than large foldout sheets. This brought about significant efficiencies in time taken to layout in preparation for printing.

Positive feedback was received about the online system. Further, there were efficiencies in the processing of statements in preparation for the printing of the candidate statement booklets, leading to significant savings in staff resources and the time required for the production and printing of booklets.

## Express Voting

Amendments contained in the Local Government (Miscellaneous Ammendments) Act 2013 allowed electors located outside Tasmania during the polling period to vote by returning a signed declaration and ballot papers by email.

The 'Express Vote' system used for Parliamentary elections was adapted for local government elections. The modifications allowed for reference to both State and General Manager's rolls, expansion of the system to deal with 29 councils each with multiple ballots, and the processing of returns compatible with the universal postal ballot system.

131 Tasmanians successfully completed an Express Vote at the 2014 local government elections.

## Legislatil

Councill 16 ections

## NOVATION

## Digitab Enhancement of Voter Carals

The netbook computers used since 2010 by the TEC for marking electors off the roll include an inbuilt webcam. At the 2015 Legislative Council elections, elector cards included individual QR codes that could be scanned by the webcam.

Previously the elector cards included each elector's roll number incorporated in a postal barcode. The scanning of the barcode required additional expensive scanner readers. The incorporation of individual QR codes containing the elector's roll number enabled the netbooks to directly find the elector for accurate and timely mark off.

At the 2015 Legislative Council elections almost 8000 electors were marked off the roll using the QR codes.
electors
marteed ofs noll using netbook webcams and new QR codes.


## Repport on

 Performnance2014 $4=15$

## Electoral Enrolment

Table 1: Electoral enrolment 2011 - 2015

|  | 2011 | 2012 | 2013 | 2014 | 2015 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Tasmanian enrolment <br> (excluding provisional enroments) | 358485 | 358649 | 360889 | 365598 | 366997 |
| Voting eligible <br> population (VEP) | 376629 | 380577 | 383232 | 383003 | 385809 |
| Enrolment rate <br> (\% of VEP) | $95.18 \%$ | $94.24 \%$ | $94.17 \%$ | $95.46 \%$ | $95.12 \%$ |

## House of Assembly Elections

Table 2: House of Assembly elections statistics 2002-2014

|  | 2002 | 2006 | 2010 | 2014 |
| :--- | :---: | :---: | :---: | :---: |
| Close of roll <br> enrolment | 332473 | 341481 | 357315 | 366442 |
| Ballot papers cast | 311637 | 324008 | 335353 | 342595 |
| \% of electors on <br> the roll | $93.73 \%$ | $94.88 \%$ | $93.85 \%$ | $93.49 \%$ |
| Formal ballot papers | 296470 | 309622 | 320438 | 326163 |
| Informality rate | $4.87 \%$ | $4.44 \%$ | $4.45 \%$ | $4.80 \%$ |
| Number of candidates | 112 | 95 | 89 | 126 |
| Nut |  |  |  |  |
| Total number of <br> counts* | 2500 | 198 | 194 | 330 |

*The number of counts fell substantially in 2006 with the adoption of the process of amalgamating parcels of ballot papers with the same transfer value when excluding candidates.

## Legislative Council Elections

Table 3: Legislative Council elections statistics by division 2014-2015

|  | 2014 |  | 2015 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Huon | Rosevears | Derwent | Mersey | Windermere |
| Close of roll enrolment | 25276 | 25047 | 25816 | 23857 | 23374 |
| Ballot papers cast | 21528 | 20369 | 20698 | 20245 | 18375 |
| $\%$ of electors on the roll | 85.17\% | 81.32\% | 80.18\% | 84.86\% | 78.61\% |
| Formal ballot papers | 20616 | 19641 | 19415 | 19508 | 17403 |
| Informality rate | 4.24\% | 3.57\% | 6.20\% | 3.64\% | 5.29\% |
| Number of candidates | 7 | 2 | 2 | 2 | 4 |

Table 4: Legislative Council elections participation and informality rates 2011 - 2015

|  | 2011 | 2012 | 2013 | 2014 | 2015 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Close of roll <br> enrolment | $73883^{*}$ | 47168 | 71576 | 50323 | 73047 |
| Ballot papers cast | 62673 | 37085 | 60793 | 41897 | 59318 |
| \% of electors on <br> the roll | $84.83 \%$ | $78.62 \%$ | $84.93 \%$ | $83.26 \%$ | $81.21 \%$ |
| Informality rate | $4.87 \%$ | $4.40 \%$ | $4.17 \%$ | $3.97 \%$ | $5.04 \%$ |

*Enrolment numbers for 2011 only include divisions that required a poll. 2011 figures also include the 2011 Derwent by-election.

## Local Government Elections

Table 5: Local government elections statistics 2005-2014

|  | 2005 | 2007 | 2009 | 2011 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Close of roll enrolment* | 350026 | 357091 | 362890 | 366906 | 375355 |
| Number of council elections fully conducted by TEC | 28/29 | 29/29 | 29/29 | 29/29 | 29/29 |
| Declarations returned | 204846 | 205074 | 201550 | 199153 | 204875 |
| Response rate | 58.52\% | 57.43\% | 55.54\% | 54.28\% | 54.58\% |
| Total ballot papers** | 563532 | 538411 | 526117 | 510563 | 591180 |
| Formal ballot papers | 553809 | 528649 | 516524 | 500410 | 574335 |
| Informality rate | 1.73\% | 1.81\% | 1.82\% | 1.99\% | 2.85\% |
| Number of candidates | 487 | 444 | 449 | 421 | 716*********) |
| Number of counts | 708 | 602 | 553 | 489 | 1365*** |

* Comprises those electors on the House of Assembly roll for an address within the municipal area as well as other owners, occupiers and nominees who have enrolled on the general manager's roll.
**Includes all ballot papers for mayor, deputy mayor and councillors.
*** Increase in number of candidates and number of counts due to the move to "all-in, allout" elections in 2014.

2O14 Local Government Elections RHyme $\operatorname{Arumblomes}$

29
Muapllite

[1 Councillor and 3 Mayoral elections not contested candidates elected unopposed.]

26
Mayoral ballots

29
Deputy
Mayoral ballots

28
Councillor ballots

CaIDCAIS
Candidates for Mayor and Deputy Mayor must also stand for Councillor

## 91 Mayoral



143 Deputy Mayoral



## 482 Councillor



## 

3 different envelopes make up one postal ballot pack outer, reply paid and declaration envelopes


1,185,500

## BIG PREBeND

This figure accounts for Robson Rotation and includes ballot papers issued for suplementary packs

## 162

Data Entry Centre Staff


## 464

## Scrutiny Centre Staff
















This section contains breakdowns of election costs and historical comparisons.

Expenditure and Revenue statements can be found in the 2014-15 Department of Justice Annual Report.

## Cost of Elections

## Table 6: Cost of House of Assembly elections

|  | 1998-99 | 2002-03 | 2005-06 | $2009-10$ | $2013-14$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total cost (\$'000) | 1565 | 1752 | 1897 | 2271 | 2743 |
| Number of electors <br> on the roll | 322754 | 332473 | 341487 | 357315 | 366442 |
| Cost per elector on <br> the roll | $\$ 5.06$ | $\$ 5.27$ | $\$ 5.56$ | $\$ 6.36$ | $\$ 7.49$ |

Table 7: Cost of Legislative Council elections

|  | 2010-11 | 2011-12 | $2012-13$ | $2013-14$ | $2014-15$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total cost (\$'000) | 577 | 421 | 544 | 465 | 752 |
| Number of electors <br> on the roll | 97893 | 47168 | 71576 | 50323 | 73047 |
| Cost per elector on <br> the roll | $\$ 5.89^{*}$ | $\$ 8.93$ | $\$ 7.60$ | $\$ 9.25$ | $\$ 10.29$ |

*Denotes that the figure includes an election that did not require a ballot (candidate elected unopposed)

Periodic Legislative Council elections are conducted annually. Elections for two divisions are held in even-numbered years, and for three divisions in odd-numbered years. Costs per election are usually higher when only two elections are held due to fixed costs.

Table 8: Cost of local government elections

|  | $2005-06$ | $2007-08$ | $2009-10$ | $2010-11$ | $2014-15$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total cost (\$'000) | 1147 | 1211 | 1248 | 1337 | 2098 |
| Number of electors <br> on the roll | 350026 | 357091 | 362890 | 366906 | 375355 |
| Cost per elector on <br> the roll | $\$ 3.28$ | $\$ 3.39$ | $\$ 3.44$ | $\$ 3.65$ | $\$ 5.59^{*}$ |

*Increase in cost reflects the move to "all-in all-out" elections in 2014.

## Table 9: Cost of Federal elections

|  | $2001-02$ | $2004-05$ | $2007-08$ | $2010-11$ | $2013-14$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cost per elector on <br> the roll | $\$ 5.09$ | $\$ 5.79$ | $\$ 8.36$ | $\$ 7.68$ | $\$ 9.48$ |

These figures were obtained from the AEC's 2013 Electoral Pocket Book. Federal election costs do not include a component for the decentralised structure of permanent divisional returning offices.

## Cost of Electoral Enrolment

## Table 10: Cost of managing and maintaining the electoral roll

This time series has been revised to include costs charged to Tasmania's 29 local government councils.

|  | 2010-11 | 2011-12 | 2012-13 | $2013-14$ | $2014-15$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Expenditure on roll <br> (\$'000) | 369 | 371 | 418 | 417 | 433 |
| Number of electors on <br> the roll at June 30 | 358485 | 358649 | 360889 | 365598 | 366991 |
| Cost per elector on <br> the roll | $\$ 1.03$ | $\$ 1.03$ | $\$ 1.16$ | $\$ 1.14$ | $\$ 1.18$ |

These costs include the cost to the State of the State/Commonwealth joint roll arrangement, communications lines to the national roll management system, associated IT costs and the cost of providing the roll to members of the Tasmanian Parliament, registered parties and other organisations approved by the Commission under section 40 of the Electoral Act 2004.


Appencilces

## Appointments

Electoral Act 2004

| Section no. | Subject | Date approved |
| :--- | :--- | :---: |
| 24(1) | Returning officers for the 2015 Legislative <br> Council elections | $4 / 2 / 15$ |
| $93(1) \& 92(4)$ | Polling places for the 2015 Legislative <br> Council elections | $4 / 2 / 15$ |

## Determinations

## Electoral Act 2004

| Section no. | Subject | Date approved |
| :--- | :--- | :---: |
| $27(1)$ | Determination of remuneration and allowances | $18 / 12 / 14$ |
| $27(2)$ | Condition of employment <br> (declaration of political neutrality) | $5 / 08 / 14$ |

## Approvals

Local Government Act 1993

| Section no. | Subject | Date approved |
| :--- | :--- | :---: |
| $27(1)$ | Procedures for voting outside Tasmania <br> (express vote) | $5 / 08 / 14$ |
| $27(2)$ | Enrolment form non-resident <br> (General Manager's roll) | $5 / 08 / 14$ |

## Legislative Council Elections

## 2015 Election Summary

Issue of the writs
Close of nominations
Polling day
Return of the writs

Monday 30 March
Thursday 9 April
Saturday 2 May
Wednesday 7 May

| Division | Retiring <br> Member |  | Elected <br> candidate |
| :--- | :--- | :--- | :--- |
| Derwent |  | Craig Farrell |  |
| Craig Farrell |  |  |  |
| Mersey |  | Mike Gaffney |  |
| Windermere | Ivan Dean |  | Ivan Dean |

## Periodic Cycle

Periodic Legislative Council elections are held on the first Saturday in May each year.

| Year | Division | Current Member |
| :---: | :---: | :---: |
| 2016 | Apsley | Tania Rattray |
|  | Elwick | Adriana Taylor |
| 2017 | Launceston | Rosemary Armitage |
|  | Murchison | Ruth Jane Forrest |
|  | Rumney | Tony Mulder |
| 2018 | Hobart | Rob Valentine |
|  | Western Tiers | Greg Hall |
| 2019 | Montgomery | Leonie Hiscutt |
|  | Nelson | Jim Wilkinson |
|  | Pembroke | Vanessa Goodwin |
| 2020 | Huon | Robert Armstrong |
|  | Rosevears | Kerry Finch |
| 2021 | Derwent | Craig Farrell |
|  | Mersey | Mike Gaffney |
|  | Windermere | Ivan Dean |

A candidate must obtain an absolute majority of the formal vote to be elected under the preferential voting system used for Legislative Council elections. If no candidate has an absolute majority from first preferences, the candidate with the lowest number of votes is excluded. The process of excluding candidates continues until one candidate obtains the required majority.

## Legislative Council Elections Results

| Election held | 2 May 2015 | Electors enrolled | 25816 |
| :--- | :--- | :--- | :--- |
| Retiring Member | The Honourable Craig Maxwell Farrell | Electors who voted | $20698(80.18 \%)$ |
| Returning Officer | Eamon Gilligan | Informal votes | $1283(6.20 \%)$ |

Elected member to serve for a six year term until May 2021
First preference votes and informal ballot papers - by polling place

| Derwent | BAKER, <br> Alan Graeme | FARRELL, Craig |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Polling place |  | Australian Labor Party | Total formal votes | Informal | Total ballot papers counted |
| Austins Ferry | 592 | 876 | 1468 | 110 | 1578 |
| Bridgewater | 501 | 1060 | 1561 | 129 | 1690 |
| Brighton | 668 | 1097 | 1765 | 141 | 1906 |
| Bronte | 32 | 32 | 64 | 5 | 69 |
| Claremont | 821 | 1408 | 2229 | 190 | 2419 |
| Dromedary | 129 | 195 | 324 | 20 | 344 |
| Ellendale | 35 | 85 | 120 | 5 | 125 |
| Gagebrook | 223 | 503 | 726 | 66 | 792 |
| Glenora | 75 | 113 | 188 | 6 | 194 |
| Granton | 246 | 384 | 630 | 38 | 668 |
| Gretna | 68 | 111 | 179 | 7 | 186 |
| Hamilton | 41 | 78 | 119 | 9 | 128 |
| Lachlan | 125 | 251 | 376 | 20 | 396 |
| Magra | 136 | 342 | 478 | 24 | 502 |
| Maydena | 38 | 70 | 108 | 17 | 125 |
| Molesworth | 95 | 155 | 250 | 18 | 268 |
| New Norfolk | 528 | 1239 | 1767 | 99 | 1866 |
| New Norfolk North | 375 | 845 | 1220 | 60 | 1280 |
| Old Beach | 606 | 847 | 1453 | 114 | 1567 |
| Ouse | 63 | 120 | 183 | 11 | 194 |
| Pontville | 92 | 205 | 297 | 19 | 316 |
| Roseneath | 282 | 438 | 720 | 61 | 781 |
| Tea Tree | 63 | 91 | 154 | 9 | 163 |
| Westerway | 70 | 133 | 203 | 13 | 216 |
| Mobile | 30 | 59 | 89 | 1 | 90 |
| Total Ordinary | 5934 | 10737 | 16671 | 1192 | 17863 |
| Postal | 504 | 867 | 1371 | 28 | 1399 |
| Pre-poll | 447 | 831 | 1278 | 62 | 1340 |
| Provisional | 20 | 37 | 57 | 1 | 58 |
| Out of division | 18 | 20 | 38 | 0 | 38 |
| TOTALS | 6923 | 12492 | 19415 | 1283 | 20698 |
| \% Formal vote | 35.66\% | 64.34\% |  | 6.20\% | formal |

FARRELL elected

## Legislative Council Elections Results

| Election held | 2 May 2015 | Electors enrolled | 23857 |
| :--- | :--- | :--- | :--- |
| Retiring Member | The Honourable Michael Victor Gaffney | Electors who voted | 20245 (85.83\%) |
| Returning Officer | Anne Scott | Informal votes | 737 (3.64\%) |

Elected member to serve for a six year term until May 2021
First preference votes and informal ballot papers - by polling place


| Polling place | GAFFNEY, Mike | GALE, <br> Vivienne | Total formal votes | Informal | Total ballot papers counted |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ambleside | 388 | 145 | 533 | 22 | 555 |
| Devonport | 605 | 180 | 785 | 34 | 819 |
| Devonport Central | 1065 | 367 | 1432 | 51 | 1483 |
| Devonport North | 583 | 245 | 828 | 45 | 873 |
| Devonport North West | 1451 | 423 | 1874 | 67 | 1941 |
| Devonport South | 670 | 211 | 881 | 40 | 921 |
| Devonport West | 845 | 279 | 1124 | 50 | 1174 |
| Don | 766 | 219 | 985 | 35 | 1020 |
| East Devonport | 1259 | 480 | 1739 | 85 | 1824 |
| Forth | 451 | 155 | 606 | 23 | 629 |
| Latrobe | 1536 | 452 | 1988 | 61 | 2049 |
| Melrose | 145 | 44 | 189 | 5 | 194 |
| Miandetta | 286 | 82 | 368 | 17 | 385 |
| Spreyton | 988 | 284 | 1272 | 69 | 1341 |
| Turners Beach | 633 | 291 | 924 | 33 | 957 |
| Wesley Vale | 99 | 47 | 146 | 2 | 148 |
| Mobile | 270 | 82 | 352 | 2 | 354 |
| Total Ordinary | 12040 | 3986 | 16026 | 641 | 16667 |
| Postal | 833 | 241 | 1074 | 24 | 1098 |
| Pre-poll | 1644 | 545 | 2189 | 67 | 2256 |
| Provisional | 53 | 13 | 66 | 2 | 68 |
| Out of division | 120 | 33 | 153 | 3 | 156 |
| TOTALS | 14690 | 4818 | 19508 | 737 | 20245 |
| \% Formal vote | 75.30\% | 24.70\% | 3.64\% informal |  |  |

## GAFFNEY elected

## Legislative council Elections Results

| Election held | 2 May 2015 | Electors enrolled | 23374 |
| :--- | :--- | :--- | :--- |
| Retiring Member | The Honourable Ivan Noel Dean | Electors who voted | $18375(78.61 \%)$ |
| Returning Officer | Anne Scott | Informal votes | $972(5.29 \%)$ |

Elected member to serve for a six year term until May 2021
First preference votes and informal ballot papers - by polling place

| Windermere | BLEYER, Vanessa | DEAN, Ivan | HOUSTON, Jennifer | McLEAN, Scott Andrew |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Polling place | Tasmanian Greens |  | Australian Labor Party |  | Total formal votes | Informal | Total ballot papers counted |
| Dilston | 112 | 340 | 107 | 69 | 628 | 29 | 657 |
| Elphin | 123 | 419 | 157 | 111 | 810 | 33 | 843 |
| George Town | 160 | 636 | 521 | 223 | 1540 | 122 | 1662 |
| George Town South | 60 | 375 | 271 | 114 | 820 | 27 | 847 |
| Hillwood | 62 | 216 | 95 | 52 | 425 | 13 | 438 |
| Inveresk | 139 | 346 | 299 | 170 | 954 | 64 | 1018 |
| Invermay | 165 | 359 | 298 | 184 | 1006 | 71 | 1077 |
| Mowbray | 93 | 284 | 255 | 152 | 784 | 58 | 842 |
| Newnham | 217 | 1108 | 814 | 550 | 2689 | 164 | 2853 |
| Norwood | 78 | 282 | 93 | 91 | 544 | 26 | 570 |
| Pipers River | 30 | 113 | 68 | 37 | 248 | 8 | 256 |
| Ravenswood | 137 | 608 | 548 | 245 | 1538 | 107 | 1645 |
| Rocherlea | 39 | 228 | 185 | 127 | 579 | 39 | 618 |
| St Leonards | 99 | 486 | 222 | 158 | 965 | 59 | 1024 |
| Waverley | 55 | 282 | 265 | 143 | 745 | 71 | 816 |
| Weymouth | 28 | 52 | 22 | 11 | 113 | 4 | 117 |
| Mobile | 19 | 163 | 48 | 21 | 251 | 12 | 263 |
| Total Ordinary | 1616 | 6297 | 4268 | 2458 | 14639 | 907 | 15546 |
| Postal | 121 | 734 | 379 | 221 | 1455 | 33 | 1488 |
| Pre-poll | 147 | 573 | 271 | 192 | 1183 | 26 | 1209 |
| Provisional | 5 | 12 | 15 | 2 | 34 | 2 | 36 |
| Out of division | 11 | 34 | 31 | 16 | 92 | 4 | 96 |
| TOTALS | 1900 | 7650 | 4964 | 2889 | 17403 | 972 | 18375 |
| \% Formal vote | 10.92\% | 43.96\% | 28.52\% | -16.60\% |  | 5.29\% | informal |

Distribution of preferences

| Windermere |  | BLEYER, Vanessa | DEAN, Ivan | HOUSTON, Jennifer | McLEAN Scott Andrew | Formal votes | Absolute majority | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Tasmanian Greens | Australian Labor Party |  |  |  |  |  |
| Count 1 | Total votes | 1900 | 7650 | 4964 | 2889 | 17403 | 8702 | First preferences |
| Count 2 | Votes transferred | -1900 | 412 | 1041 | 447 |  |  | Bleyer excluded |
|  | Total votes | 0 | 8062 | 6005 | 3336 | 17403 | 8702 |  |
| Count 3 | Votes transferred |  | 1631 | 1705 | -3 336 |  |  | McLean excluded |
| TOTALS |  |  | 9693 | 7710 | 0 | 17403 | 8702 |  |
|  |  |  | 55.70\% | 44.30\% |  |  |  |  |

DEAN elected

## Legislative Council Elections

## Informal Ballot Paper Survey

| Apparent intentional informal voting | Derwent | Mersey | Windermere | Total |
| :---: | :---: | :---: | :---: | :---: |
| Blank | 404 | 204 | 245 | 853 |
| Deliberate informal or scribble/ messages only | 601 | 282 | 444 | 1327 |
| Total | 1005 | 486 | 689 | 2180 |
| Apparent unintentional informal voting |  |  |  |  |
| Contains writing identifying elector | 0 | 2 | 4 | 6 |
| Contains only ticks or crosses | 235 | 223 | 143 | 601 |
| No first preference | 9 | 12 | 10 | 31 |
| Repetitions or omissions | 0 | 0 | 102 | 102 |
| Two or more first preferences | 34 | 14 | 24 | 72 |
| Total | 278 | 251 | 283 | 812 |
| Total | 1283 | 737 | 972 | 2992 |

## Derwent

## Mersey



## Legislative council Elections Divisional Maps

Divisional maps are also available on our website.


## House of Assembly Recount

On 9 June 2015 a recount was conducted to fill the vacancy in the House of Assembly created by the resignation of Kim Booth on 22 May 2015.

| Bass |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Australian <br> Labor <br> Party | Palmer United Party |  |  | Tasmanian Greens |  |  |  |  |  |
|  |  | $\pm$ <br> 5 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br>  |  |  |  |  | 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> $\frac{0}{0}$ <br> $\frac{0}{x}$ |  |  |  |
| Votes | 906 | 343 | 324 | 641 | 7106 | 467 | 671 | 8 | 10466 | 4898 |
| Percentage | 9.3\% | 3.5\% | 3.3\% | 6.5\% | 72.6\% | 4.8\% |  |  |  |  |

Andrea Dawkins was elected as a Member of the House of Assembly for the division of Bass until the next general election.

## Major Changes to Local Government Elections

The 2014 local government elections were the first to be conducted since the enactment on 20 June 2013 of the Local Government Amendment (Elections) Act 2013, and the making of the Local Government (Number of Councillors) Order 2013, the Local Government (Casual Vacancies) Order 2013, and the Local Government (Elections) Order 2013.

The effect of these was to defer the elections, originally scheduled for 2013, until 2014 when all councillors and aldermen, and mayors and deputy mayors, would be elected for a four year term ending in 2018. The terms of office of councillors elected in both 2009 and 2011 ended in 2014.

The requirement for a mayoral candidate to have previously been a sitting councillor on any Tasmanian council for a period of 12 months was removed by the Local Government (Mayoral Candidate Eligibility) Act 2014.

A councillor or alderman who becomes a Member of the Tasmanian Parliament may now only hold both offices for 12 months. A Member of the Tasmanian Parliament who becomes a councillor or alderman may only hold both offices for 30 days.

There was also a reduction in the number of councillors or aldermen to be elected to nine councils. The reductions were as follows:

| Council | Previous <br> number | From the <br> 2014 elections |
| :--- | :---: | :---: |
| Central Coast | 12 | 9 |
| Derwent Valley | 9 | 8 |
| Devonport City | 12 | 9 |
| Glamorgan-Spring Bay | 9 | 8 |
| Glenorchy City | 12 | 10 |
| Kingborough | 12 | 10 |
| Southern Midlands | 9 | 7 |
| Tasman | 9 | 7 |
| Waratah-Wynyard | 10 | 8 |

## APPPENIDITK E

# Computer <br> Count 



Charged with the responsibility of building a computerised Hare-Clark counting system for $\$ 350,000$ within a 12 month period, the TEC under the leadership and direction of the Operations Manager and the Deputy Electoral Commissioner, successfully adapted the Victorian Electoral Commission counting system within budget and on time.

This appendix outlines the development aspects of implementing the new Computer Count election counting system.

## IT Infrastructure

The Tasmanian development of Computer Count required the TEC to make significant changes to the IT hardware and networking infrastructure of the office. This was the TEC's first attempt at a web based online system that would be used by multiple users at different locations across the state.

Computer Count is an ASP.Net application with an MSSQL database structure and a Silverlight user interface. New developer laptops and software licenses were purchased to facilitate modifications to Computer Count. A new hypervisor server (a server designed to run several virtual instances of operating systems in parallel) was also purchased to allow multiple copies of Computer Count to operate concurrently. The purchase of this server saves the TEC from ongoing cloud costs and allows for election recounts to be conducted.

The TEC's networking infrastructure prohibits access to the server from outside the office. With the assistance of Telstra, the production instance of Computer Count (for the elections) was moved from the internal TEC server to Telstra's cloud infrastructure. At the conclusion of the elections, the digital ballots were backed up and transferred to the TEC's server.

Through the use of Telstra's cloud infrastructure, the TEC was able to have a secure and reliable link between the UTas campus, the Computer Count server and the TEC office.

## Modifications of VEC System

To successfully modify the VEC system, the TEC established a project team consisting of:

- TEC operational staff;
- an IT analyst;
- a program developer; and
- a Telstra networking specialist.

Computer Count was originally designed to obtain key information, such as candidate names, from within other modules of the VEC election management system. The linking to current TEC systems was the first major stage in modifying the system for Tasmanian elections. Using a stepped testing and audit process, different hard coded aspects of the system were systematically replaced with new elements for the TEC environment. This then enabled the TEC to run a Victorian election in the TEC environment before commencing any election programming modifications.

The next stage of the project was to commence programming of the identified differences between the Victorian STV counting system and Hare-Clark used for Tasmanian council elections. The major differences were:

- how transfer values are calculated (decimals instead of fractions);
- how votes are calculated (calculated to two decimal places instead of integers);
- how each system resolves ties;
- how ballot papers are amalgamated when excluding a candidate;
- how a surplus is distributed (which papers are distributed and at what value);
- allowing for exhausted votes (unnecessary in Victoria, as their system is full preferential);
- ballot paper configuration (Robson rotation of names on the ballot paper instead of a fixed ballot paper order);
- creation of reports suitable for Tasmanian Hare-Clark elections;
- the process for filling a casual vacancy (Hare-Clark recount).

The TEC established the following computer project management tools:

- Visual Studio with a Microsoft Developer Network (MSDN) subscription to modify the code;
- Visual Studio Online to maintain the source code;
- Confluence to document programming developments and solutions; and
- Jira to record all major programming stages, issues and bug tracking.

The use of Jira and Confluence provided an effective communications tool between the TEC office and our external developers, who were able to report on the development of the software in a structured and ordered way. There were 369 issues recorded on Jira and resolved as part of the development process.


## Data Entry Planning

The original Silverlight data entry interface was designed for a single order of candidate names on all ballot papers. As all Tasmanian Parliamentary and local government ballot papers use Robson rotation of ballot paper names, an additional element to the user interface was required. This was a fundamental change to the data entry process as the system needed to have a mechanism for displaying the order of names and capturing the associated preferences from one ballot paper to the next.

When commencing the data entry of a ballot paper, the first requirement was to enter the two-digit rotation number for that ballot paper (written in the top left corner). The interface then produced the version of the ballot paper that listed the candidate's names in the same order as the printed ballot paper. A two-digit number was entered for every square containing a preference. Once the data entry reached the bottom of the paper, the rotation number for the ballot paper (also written in the bottom left corner) was re-entered to ensure the correct version of the ballot paper was used.

To ensure data entry ran smoothly the following attributes were identified and included in the setup:

- Appropriate monitor size - which enabled a ballot paper up to 25 candidates in a column to be viewed on screen;
- Identification and purchase of appropriate stands to ensure ballot papers up to 30 candidates could be data entered; and
- Ensured that the venues had numeric keypads to facilitate data entry.

A second difference between Victorian local government and Tasmanian local government elections is the formality requirement for councillor ballot papers. To be a formal vote for Victorian councillor elections the voter must provide a preference for all candidates. This then enabled the data entry process to check formality as a part of data entry. The VEC then only required a single data entry of ballot papers except for in the case of very close results.

As a formal vote for Tasmanian councillor elections only requires preferences up to the number being elected, the likelihood of an error that could not be detected by the data entry system was high. Therefore the TEC required that all councillor ballot papers be blind double entered.

## Venue Management

The data entry process required two venues (one northern and one southern) that could accommodate upwards of 100,000 ballot papers to be double entered within a five and a half day period. The venues each required -

- Security arrangements: To ensure ballot paper security, the venue needed to provide storage and processing rooms that were locked 24/7 with access only available by entry keys. When TEC staff were not on site it was essential that a security guard presence would be provided.
- Networking infrastructure: The venue required a broadband connection large enough to transmit significant amounts of data securely between the data entry venues and the Telstra cloud.
- Computer hardware: The venue required sufficient computer hardware to enable data entry to be undertaken by large numbers of data entry staff.
- Onsite IT support: Due to the critical timing of the data entry process, the venue would need to provide 24/7 IT support to minimise any downtime.
- Other physical spaces: All-hour access to toilets and additional rooms for staff breaks and training would also be required.

As local government elections were conducted during the University of Tasmania's examinations period the University agreed to provide 3 computer labs in Hobart and 3 in Launceston for the purposes of data entry. Using the University campuses was ideal as they met and exceeded all venue criteria and enabled the TEC to increase the processing and staffing capacity for these elections.

The University provided these services free of charge as a community service with the only cost being any out of hours IT support incurring overtime for staff. In recognition of the major cost saving to councils, the TEC included University promotional material on the back cover of all candidate statements posted for these elections.

Data Centre locations on UTAS Hobart and Launceston campuses


## Staff Recruitment

The following staffing structure was established :

- data centre managers (1 at each centre);
- ballot paper managers (4 in Hobart and 3 in Launceston);
- election managers (1 per councillor ballot);
- team leader (1 per row of data entry staff);
- data entry staff;
- couriers (movement of ballot papers from scrutiny centres to data entry centres);
- network and system management team (2).

The lab computer configuration allowed for 70 data entry staff to be used per shift (40 in Hobart and 30 in Launceston). The lab layout allowed for separate areas for different council elections to be entered in parallel (4 councils in Hobart and 3 councils in Launceston).

As electoral casuals do not normally undertake data entry, the recruitment of casuals with this specialist skill was contracted to Searson Buck, who conducted a state-wide advertising campaign to recruit the 140 operators and 22 team leaders required. Other positions were recruited from the TEC electoral casual pool.

Establishing a strong staff culture was essential to ensuring consistent and accurate data entry. New training was developed building on lessons learned from onsite testing. All data entry staff were required to undertake this training in the half hour before data entering any ballot papers.

The primary tasks of the team leaders were to monitor data entry staff, manage workflow, answer procedural questions and move ballot papers between the election manager and the data entry staff.

The primary tasks of the election managers were to be the key manager of each individual election, manage the ballot paper allocations, assist with scrutineers, handle second entry discrepancies and ensure all ballot papers were processed and accounted for.

Ballot paper managers were responsible for all ballot papers not signed out to election managers, and for processing and reviewing all informal ballot papers found after the first data entry.


## Defining the Process

Successful implementation of the new systems could not be achieved without clearly defining all interrelated processes.

## Ballot Paper Management

The data entry of ballot papers added complexity to the process, in that councillor ballot papers were required to be moved from the scrutiny centre to the data entry centres.

A new system of batch headers was created for cataloguing all bundles of 50 ballot papers. This became the control mechanism for ensuring couriers would collect the complete sequence of ballot paper bundles and ballot paper managers would receipt and audit the complete sequence.

These batch headers remained with their bundle of ballot papers at all times as they were also the
 reference system used for the data entry processes. Each batch header would also included an individual PIN code to assist in data entry security.

With over 100,000 ballot papers being data entered, a robust tracking system was required to ensure the location of all bundles of ballot papers were accounted for at all times.

The TEC developed specific tracking sheets, instructions and physical areas to manage the movement of ballot paper bundles from storage, to first entry, to informal checking to second entry.

It was the responsibility of ballot paper managers to know where in the process all ballot paper bundles were within the data entry centre. Team leaders recorded which batches were allocated to each operator, including the time allocated and time returned. Controlling the movement of ballot papers ensured no batches were be entered by the same operator during the second data entry.

Zones were established for each council within the ballot paper secure room to ensure clear delineation of papers at all times. Within these zones ballot paper bundles were moved from areas set up for the pre data entry phase to post first data entry phase to post second data entry phase.


As ballot papers for different councillor elections were to be data entered in parallel within the centres, each council was allocated different coloured ballot paper stock and batch headers.

Once the data entry for a council was completed, the ballot paper batches were re-audited to ensure all stages had been completed and integrity checks were undertaken. Once the audit was completed ballot papers were securely packaged for return to the TEC offices.

With over 4,800 bundles of ballot papers to be processed, simple instructions and resources were required to ensure data entry was conducted in an accurate and consistent way.

These instructions and resources included:

- details concerning the movement of bundles to and from data entry operators (new batches face up, completed batches face down in the out tray);
- simple instructions and images for data entry;
- pause cards for cases where the operator was interrupted part way through a batch; and
- Training for how to accurately complete the information on the batch headers.

Data entry operators were trained to enter the numbers "they see" rather than attempt to interpret what the preferences should be. If there was any doubt the ballot paper was considered informal, placed at the back of the batch and reviewed by experienced electoral staff.

To successfully undertake a second data entry of ballot papers, it was important that the formal ballot papers remained in the same sequence within each bundle. To ensure this, ballot papers were clipped at the top of each bundle. Informal ballot papers were not stored in the system.

## Venue Logistics

With large numbers of new staff working in an unfamiliar building for a short highpressured period, it was essential that staff were given clear information so they could be prepared and at the right place at the right time.

Support documents were developed as a result of early testing within each location. These included external and internal signage on buildings, maps for all data entry staff, designated break out areas, secure areas and zones for scrutineers.

Data entry was conducted over two daily shifts - 8am to 1 pm and 1:30pm to $6: 30 \mathrm{pm}$. All batches were returned to the ballot paper secure room between shifts. Data entry operators and team leaders worked one shift per day, while all managers work both shifts.

## Providing Updated Figures

Since 1994, the TEC has released first preference figures for all local government ballots on the evening following the close of the poll. The TEC needed to look at what figures could be provided from the data entry systems on the first evening of data entry.

Under the new system, progressive first preference figures and a provisional count were to be provided on the close of poll evening. The number of ballot papers to be entered for each council on that afternoon were set as part of the planning process.

On the day after close of poll $50 \%$ figures were released and then after 2nd data entry final figures were released for all councils. Although the progressive distribution of preferences was likely to indicate the outcome this could not be confirmed until after the second data entry of all ballot papers had been completed.

## Disaster Management

As part of the planning for the new system, different levels of contingency planning were established. This included:

- hourly backups of data entry data to ensure that at any critical stage there was minimal loss of data;
- continuous monitoring of workflow throughout the data entry period by data centre managers;
- arrangements with the University to extend the time onsite if any significant delays occurred during data entry; and
- as a last resort, physical space and casual staff earmarked to undertake a full manual count in the highly unlikely case that the system completely fell over.



## The Testing Regime

Fundamental to the successful implementation of a new complex computer system is establishing and implementing a comprehensive testing regime of all aspects of the project.

For this project, testing was developed for the following components.

## Programming

The original Computer Count software contained 376 unit tests that were designed to ensure the integrity of the software was maintained whenever a modification was undertaken. An additional 23 unit tests were created for the Hare-Clark modifications.

## Election Count Scenarios

Thirty-five count scenarios were developed for testing that the software was compliant with the legislation. These tests covered a broad range of election variables, such as:

- the number of candidates contesting;
- the number of candidates to be elected;
- candidates being elected at different stages in the count;
- various tied candidate situations;
- dealing with the death of a candidate; and
- candidates elected with or without a surplus.

For each of the scenarios, a CSV file of ballot paper preferences, a normal scrutiny sheet and a Computer Count result sheet were produced.

## Previous Elections

Initial testing of modified Computer Count was conducted in the TEC office using previous local government councillor ballot papers. Following testing of small councils, the 2011 Hobart City Council councillor ballot papers were data entered by 10 staff over a week. While the small councils provided insight into the accuracy of the system, the Hobart ballot paper test provided insight into the time taken to data enter a large volume of ballot papers testing the systems capacity to handle a larger workload.

## Onsite Testing

Onsite testing of data entry processes was undertaken in the University labs in the June and September prior to the elections. The June tests were undertaken consecutively 24 June at Hobart and 26 June at Launceston. The September testing had one full lab at each site running in parallel. The timing of these consecutive and parallel tests was co-ordinated around the University's holiday periods to cause minimal impact on students and staff.

These tests identified the necessity for team leader responsibilities to be separated from those of the election manager, as both had significant parallel roles. This testing also provided:

- further confidence in the network infrastructure of the venues;
- the early recruitment of data entry staff which enabled the TEC to identify quality staff, confirm the standard required for data entry staff, improve training material and provide a subgroup of experienced staff for the October elections;
- onsite IT support staff with a good understanding of the system and demands that would occur in October; and
- the IT network support team with the experience of monitoring and supporting the data entry centres remotely.

Once the Hare-Clark modifications to Computer Count were completed and tested, the TEC employed the Victorian audit company BMM Compliance to undertake a programming audit of the modified system. BMM Compliance had previously been employed by the VEC to audit the original Computer Count system.

The scope of the review included:

- confirmation and certification that the ballot counting code correctly implemented the calculation of proportional representation -Hare-Clark algorithm- in accordance with the relevant legislation;
- inspection of source code for any fraudulent code and to ensure it accurately implemented the requirements;
- a review of testing methodology, test cases and test results.

BMM found that:
a) Changes made to original source were accurately documented in the submitted material;
b) There was no evidence of malicious code in the software;
c) The test coverage was adequate to ensure that the system complied with relevant legislation; and
d) A record exists of successful completed test cases.

To support the computer audit the TEC also contracted eminent Tasmanian psephologist, Dr Kevin Bonham, to conduct an electoral audit of the new data entry process and computerised scrutiny. Dr Bonham's report also confirmed that the system and data entry procedures correctly and accurately met the Tasmanian legislative requirements.

Once the fully computerised recount system was finalised the TEC again employed BMM Compliance and Dr Bonham to undertake similar audits for the recount process. These reports are expected to be completed in the first week of the next financial year, prior to undertaking the Launceston City Council recount.


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