Projecting Volunteer Resource Requirements Under Extreme Climate Futures

Technical Report

Tomas A Remenyi,
Rebecca Harris, Christopher J. White, Stuart Corney,
Julia Jabour, Sally Kelty, Kim Norris,
Lisa Denny, Roberta Julian, Nathaniel Bindoff

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Preamble

This project was a collaboration between the Antarctic Climate and Ecosystems Cooperative Research Centre, and the University of Tasmania (specifically the schools of Engineering, Social Sciences, Psychology and the Institute for Marine and Antarctic Studies). Funding was provided through a competitive process, awarded by the Australian Government Attorney-General's Department, under the *National Partnership Agreement on Natural Disaster Resilience - Emergency Volunteer Fund* managed by the Tasmania State Emergency Service. Governance of the project was provided by the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC) and guidance was offered by the Tasmanian Emergency State Volunteer Management Working Group (ESVMWG).

Project duration:	12 months
Project start date:	2015-04-01
Project expected completion date:	2016-06-30

Terminology

ACE CRC	Antarctic Climate and Ecosystems Cooperative Research Centre
ADF	Australian Defence Force
AT	Ambulance Tasmania
ESVMWG	Tasmanian Emergency Service Volunteer Management Working Group
EVN	Tasmanian Emergency Volunteer Network
SES	Tasmania State Emergency Service
MAV	Multi-Agency Volunteer. An individual who is an active volunteer for multiple organisations
TASPOL	Tasmania Police
TFS	Tasmania Fire Service

Introduction

This project was funded to consider the impacts of a changing climate on emergency service volunteer resources in Tasmania. It employed a 5-stage process to match current volunteer profile data with Climate Futures for Tasmania climate hazard projections. The State Emergency Service (SES), Tasmania Fire Service (TFS) and Ambulance Tasmania (AT) supplied information on their current volunteers (e.g. age, gender, employment status, mobility) to allow cross-agency collation, comparison and analysis.

From this information, the current profile of the entire Tasmanian Emergency Volunteer Network (EVN), each participating agency, and a further breakdown of each by municipality was distilled. The projected change of the EVN by municipality was then calculated based on the demographic projections of each Tasmanian municipality from the Tasmanian Department of Treasury and Finance.

With the demographics assessed, assuming limited fundamental change in emergency technologies, the project then provided evidence to help determine the expected requirements of the emergency services volunteer workforce given the projected frequency and severity of climate hazards (e.g. future fire danger, future heat stress, future rainfall runoff intensity), as described in the Climate Futures for Tasmania reports.

The information presented in this report is only as accurate and precise as the data provided. The best available data was used to provide estimates, although it is recognised there are many known limitations of these data sources, and these limitations should be considered when interpreting the results.

This report is the technical description of all aspects of this project. A summary report is available in the companion document—*Projecting Volunteer Resource Requirements Under Extreme Climate Futures: Summary Report*.

The project is managed in two major parts: data collation followed by data analysis. These are presented below as a series of Milestones. The project produced:

- A collated database of all the participating organisations' volunteer details (and if desired, an associated data template) (Milestone 1).
- A report that includes:
  - a description of the current profile of the Tasmanian volunteer workforce, with agency and regional breakdown (Milestone 2);
  - the temporal and regional trends observed in these profiles (Milestone 3);
  - the overall temporal and regional trends of climate hazards (that is, the danger of any kind of climate hazard) (Milestone 4);
  - a projection of future requirements for the Tasmanian Volunteer workforce given the projected change in climate hazards (Milestone 5); and,
  - a projection of the psychological impact on volunteers (positive or negative) given the projected change in climate hazards (Milestone 6).

Chapter 1

Milestone 1: A collated database of all the participating organisations' volunteer details

1.1 Scope

Scoping discussions during the creation of this project suggested that the managers of emergency volunteers in Tasmania had very limited access to the personnel databases of other agencies for informing operational and strategic decisions. Although the relationships between the organisations are excellent, databases are not inter-linked to assess the demographics of the entire volunteer network. Each database has its own legacy configurations with no agreed common data-fields to allow rapid integration of data between organisations. Managers were also aware that some volunteers were known to volunteer for multiple organisations (referred to in this report as a multi-agency volunteer, MAV), although how extensive this practice was had not been quantified. This project aimed to collate a database of AT, SES and TFS personnel by integrating the records from each organisation, identify active volunteers (where possible) within each dataset, identify MAVs and assess the overall population of the EVN.

In an extreme scenario, it is possible the total number of volunteers could be only a third of that expected (where all active individuals volunteer for AT, SES and TFS). This was foreseen to be a potential risk for managers of the EVN to effectively plan and manage personnel deployments/movements during a major event. When this project was conceived, the number of MAVs was unknown. However, by the time the project began, the SES had completed a survey in which respondents provided details of which other organisation they also volunteered their time (if any). This included TFS and AT as well as if they were an employee of Tasmania Police (TASPOL) or the Australian Defence Force (ADF). This recent data collected by the SES had not been analysed, so although these individuals were expected to be in the minority, there was limited understanding of the extent of this practice.

1.2 Methods

Both the SES and the TFS provided all available personnel data (following the *Personal Information Protection Act 2004, Schedule 1 - Section 2*). Unfortunately, changed internal circumstances made it impossible for AT to provide all personnel details, but they provided an alternative suite of data-fields to allow the project to continue and Milestones 1 to 3 to be completed.

1.2.1 Identifying active vs inactive volunteers

Data from the SES included past and current members. Although there was a field in their database to declare if a member is active, it was advised this was quite inaccurate. Therefore a method was developed to identify active members based on their presence within the last 18 months in a range of fields including: *Officially deemed inactive*; *Attending an Incident*; and *Attending an Event*. This was confirmed to be a reasonable approach by the SES data manager. Data from the AT and TFS only included current members. There was no capacity to determine if those in the dataset provided had become inactive recently, so all were deemed active. Data fields deemed useful for further analysis were included in the final data product. These fields are described in Table 1.1.

1.2.2 Identifying known multi-agency volunteers (MAVs)

Once the three datasets were merged, multi-agency volunteers (or people who were duplicate entries) were identified. SES volunteers had a range of fields that identified if they were an MAV. A comparison of the SES and TFS datasets revealed about 15 additional multi-agency volunteers not identified in the SES database. Values within each of the fields *Family Name*, *Given Name* and *Residential Address* were not standardised within each of SES or TFS source datasets, and it proved too time consuming to attempt to standardise with each other. Therefore, it proved more efficient to manually check for multi-agency volunteers than to use a programmatic approach.

1.2.3 Estimating the total number of multi-agency volunteers

AT could not provide sufficient details to identify multi-agency volunteers directly, therefore the proportion of multi-agency volunteers identified in the SES was used to estimate the number of AT MAVs. Estimates were based on the number of people per municipality to ensure less populous municipalities (such as Flinders) had higher rates of MAVs than more populous municipalities (such as Launceston).

1.3 Output

1.3.1 A collated database

The collated database was provided as a comma-separate-values file associated with this document (`EVF_personnel_data_combined.csv`). A list of identified duplicate entries was available as a separate file (`EVF_personnel_data_combined_duplicates_only.csv`). Both of these were intended for use by the agency managers.

1.3.2 A data template

It became obvious very early in the project that it would be impractical to develop a method (or template) for regular or routine data integration between the AT, SES and TFS databases. The databases were too different and currently too inflexible due to their age and legacy configurations. The task of providing a reusable data-template therefore grew in scope to be well outside the capacity of what was possible within this project's budget and available expertise. During the project development the 'data template' was identified as a potential risk, so was included as an optional extra. Therefore, this approach does not impact on the deliverables of the project. This project offers a one-time solution (rather than a re-useable tool).

1.4 Additional findings

1.4.1 Emergency network support from current employees

It was identified very early in the project that unofficial support/secondment (i.e. volunteering of time for critical administrative duties) by those within the emergency network is a practice that is common during major events, however the impact this has on day-to-day activities (lost productivity) has not been quantified. With the reduction in size of the public sector and some of the support organisations (e.g. Forestry Tasmania), the capacity of the agencies and employers to respond during major events is diminishing, as is the capacity to subsequently catch-up / recover the lost productive hours diverted from day-to-day activities during an event. It is recommended that a project to investigate these phenomena be developed.

1.4.2 Emergency network employees who also volunteer

There are many examples within the Tasmanian emergency network (e.g. SES, TFS, AT, TASPOL, ADF) of employees also being active volunteers of either the same organisation, or of other emergency service organisations. This is a variant on multi-agency volunteering that requires further investigation. During minor events this is a manageable situation (just like for any other regular employer), however, during major events, this limits the surge-capacity and fatigue management of these individuals. The same individuals might be tasked with one (or more) critical roles but the human resource management system is not integrated across the entire network to track the responsibilities and/or activities of an individual.

1.4.3 Database inter-compatibility

Data managers from the AT, SES and TFS all agreed that an upgrade/review/redesign of each of their data management systems would be useful and timely, and that this would be an obvious and convenient opportunity to move towards a more integrated or inter-compatible approach to data management. This is particularly true for all systems that are not yet running on 64-bit-architecture, as they are running out of space for new data-fields (if they have not already).

1.4.4 A cross-organisational approach to data management

As database migration is a complex and potentially costly exercise, it would require dedicated resources and a significant commitment from the incumbent data managers within each organisation to guide the design process so as to achieve a workable, collaborative solution. Some recommendations to consider if developing a cross-organisational approach to data management within the Tasmanian emergency management sector would be:

- Identify questions managers wish their database could answer (e.g. How many active members do we have in each organisation? Across the EVN? What is our surge-capacity per region?).
- Prioritise each question to ensure effort is spent on developing the relevant components.
- Identify which databases should be integrated and ensure all agencies involved agree to support the project (e.g. SES, TFS, AT, Red Cross, Volunteering Tasmania, St Johns Ambulance, Surf Life Saving Tasmania).
- Identify the most appropriate language / program within which to develop the database template (i.e. consider: security, ease of use, flexibility, future capacity of the database, existing in-house expertise, cost of external vs internal data management).

- Subsequently ensure there is in-house knowledge/capability to maintain the database (i.e. provide training for data managers in the required language/program).
- Identify data-fields that are: common across all of the participating databases; common across some of the participating databases; unique to each of the participating databases; sensitive and should not be included in a general cross-organisation system (e.g. Australian Volunteer Number, Family Name, Given Name, Addresses).
- Develop a list of data-fields that are absent but desired for inclusion in the new system (and determine if these are common or unique as above)
- Develop an agreed nomenclature for data-field names that is consistent and easy to follow (e.g. `Given_Name` or `NAME`; `Residential_Address` or `RADDR`).
- Agree upon the 'style' of the database (e.g. personnel-based / truck-based / unit-based / other-based).
- Identify data entry/collection methods that can simplify/standardise/automate data entry/collection to streamline personnel contributions and limit potential for variation/error. This will help promote data quantity and quality (e.g. Use the same reference drop-down menus to select street addresses so that addresses are the same across all organisations; use automated tracking devices on vehicles so the personnel do not have to remember where they went throughout the shift / deployment).

1.4.5 Data collection and management systems

Limitations

It has been recognised by data managers within the emergency network that the data collection and management systems need urgent attention. Current limitations of the data management systems are:

- Volunteer personnel details are not always standardised within the database of each agency.
- Volunteer personnel details are not standardised between agencies, limiting the capacity to share information.
- Individual volunteer workload is not currently logged with sufficient accuracy to ensure distribution of work throughout the agency or the network.
- The deployment location of personnel is rarely logged or tracked. This prevents the management of individuals during events, or across agencies (i.e. multi-agency volunteers).
- Incident details are not standardised within agencies, or between agencies.
- Data collection requires significant manual effort at all levels of the record management chain. This impacts the quality and quantity of data collected.

Options

State of the art data collection and management products that will solve most (if not all) of the above problems exist, and could be efficiently applied across all agencies (or specialised for each agency). Such systems are affordable, adaptable, dynamic and currently used to manage and respond to incidents by emergency management agencies. These systems are also used in Tasmania by the private sector to manage and respond to incidents similar to emergencies. These systems use open-source—but highly secure—data formats to ensure database entries are not locked to software and are thus future-proof.

Modern data collection and management solutions feature tailor made applications (that can be dynamically altered in real-time if required) deployed on standard mobile devices. Through

these custom-designed apps it is possible to manage such operations as: initiating deployments, collecting incident data, querying current progress, tracking current locations and managing personnel movements. Similar systems have already been used by SES personnel when assisting local triathlon and race management. Tasmania is perfectly positioned to implement such a system due to the strong collaborative relationships between agencies.

Table 1.1: A description of the fields contained in the collated list of active members from the SES, TFS and AT. The collated database is available as a comma-separate-values file associated with this document (`EVF_personnel_data_combined.csv`). A list of identified duplicate entries is available as a separate file (`EVF_personnel_data_combined_duplicates_only.csv`)

Field Name	**Description**
`EVF_UNIQUE_ID`	A unique code for each individual in the collated database.
`Family Name`	The family name of each individual in the collated database.
`Given Name`	The given name of each individual in the collated database.
`Duplicate`	A flag to indicate if the individual has been identified as a 'duplicate entry' either within the source dataset or because they are an MAV.
`Gender`	The gender of each individual in the collated database.
`DOB`	The date of birth of each individual in the collated database.
`Municipality`	The residential local government area of each individual in the collated database.
`Suburb or Town`	The residential suburb or town of each individual in the collated database (or if residential address was missing, the postal address was used).
`Residential Address`	The residential address of each individual in the collated database (or if residential address was missing, the postal address was used).
`Postal Address`	The postal address of each individual in the collated database (or if postal address was missing, the residential address was used).
`SES - CLIE_ID`	A unique code for each individual in the SES dataset
`SES - SEST_DEFENSEFORCE_MEM`	A flag to identify if the SES member was also a member of the Australian Defence Force (Serving or in the Reserve).
`SES - SEST_TASAMB_MEM`	A flag to identify if the SES member was also a member of AT (the SES database is unclear if as an employee or volunteer).
`SES - SEST_TASFIRE_MEM`	A flag to identify if the SES member was also a member of TFS (the SES database is unclear if as an employee or volunteer).
`SES - SEST_TASPOLICE_MEM`	A flag to identify if the SES member was also a member of TASPOL.
`SES - SEST_OTHER_MEM`	A flag to identify if the SES member was also a member of another emergency response or volunteer agency (undefined if this means employee or volunteer).
`TFS - RMS Pers ID`	A unique code for each individual in the TFS dataset
`TFS - Rank`	The rank of the TFS member within the TFS.
`TFS - Brigade`	The brigade with which each TFS member is associated
`TFS - Start Date`	The date when the TFS member officially became active.
`AT - HR_EMPL_CODE`	A unique code for each individual in the AT dataset.
`AT - AGE  30/6/15`	The age of each individual in the AT dataset on the 30th of June 2015 (when the data was provided).
`AT - SY_CODE_NAME`	The unit with which each AT member is associated.

Chapter 2

Milestone 2: A description of the current profile of the Tasmanian volunteer workforce, with agency and regional breakdown

2.1 Scope

Within each emergency response agency, there is a relatively good working knowledge of the number of active volunteer personnel available. However, there is very limited understanding of how these capabilities interact across the entire EVN. A key part of this project was to quantify the demographics within each agency using the existing personnel data, combine these records to estimate the demographics of the entire EVN, and then determine what the salient features were.

2.2 Methods

Following Stage 1, personnel data was cleaned, duplicate entries removed and a municipality assigned. This allowed a broad description/profile of the personnel within each agency. Once the three personnel datasets where combined (also in Stage 1), an analysis was then conducted to quantify the total EVN personnel within each municipality. Municipality was agreed as the most appropriate spatial unit for personnel data across all three agencies to ensure consistent treatment of results and also to ensure individuals could not be identified.

2.3 Demographic profile of the EVN

2.3.1 Current

Broad demographics of the EVN are presented in Table 2.1. The Tasmanian EVN has about 4,750 active personnel, with about 80% being members of the TFS and the remaining 20% evenly split between AT and the SES. Overall, about 5% of the EVN are estimated to be multi-agency volunteers.

When broken down by municipality, there was a wide variety in the proportion of total volunteers in each of the agencies. The total number of volunteers in each municipality for AT and SES ranged between 0 and 63 people. The proportion of multi-agency volunteers also ranged significantly, with maximum of 64% in Flinders. As can be seen in Figure 2.1 and Table 2.2, there is limited relationship between the total population of a municipality and the active number of EVN personnel in that municipality. A greater proportion of the community chooses to volunteer in

smaller communities, but the units in the major centres have a larger number of active personnel. This relationship does not appear useful for operational or strategic decision making.

For AT, their structure is such that volunteers are always external to the major centres, which are serviced only by professional staff. As such, there are regions where there is zero volunteer presence, such as in the Hobart and Launceston municipalities.

Another feature to make note of is the high engagement achieved by AT within the Sorell municipality, in contrast to the low engagement achieved by the SES in this municipality. Initially considered to be an error in the data, after confirmation with the SES this anomaly appears to be real. An explanation for the feature may be related to the absence of an SES unit in the region, with the geographical barrier (no SES units within the region) working in favour of AT recruitment, at the expense of SES. It appears potential recruits who do not wish to join the TFS still choose to volunteer, but choose an agency close to home, which in the case of Sorell, is AT.

2.4 Additional findings

2.4.1 The location of stations: Does it matter?

It is noted not all agencies call the home-base of each deployable team a *station*, it is used here as a general term to refer to the physical infrastructure.

There is indicative evidence within the personnel data provided that Tasmanian volunteers are sensitive to the distance they must travel to their local station. This is supported by anecdotal accounts obtained by informal discussions with agency personnel. It might be worth further investigation to assess if there is a real relationship between the distance of stations from cities / suburbs / towns and potential impact on recruitment (or retention) of volunteers.

2.4.2 Sharing of infrastructure and regions

Given the apparent sensitivity of volunteers to distance (or travel time) to their nearest station (noting the limited evidence), are there opportunities for agencies to further improve their geographic coverage? This could be done through increased sharing of physical infrastructure (as already practiced in some regions by TFS and AT) or strategic positioning of new stations to minimise travel to the station for future recruits?

2.4.3 Are recruitment strategies aware of geographic (or other) barriers

Are the current recruitment strategies throughout the entire EVN capable of promoting/encouraging the development of new, local deployable teams? For example, if AT or TFS identify recruits within Sorell interested in joining SES, could they support an SES team within their station? Could such a strategy be workable?

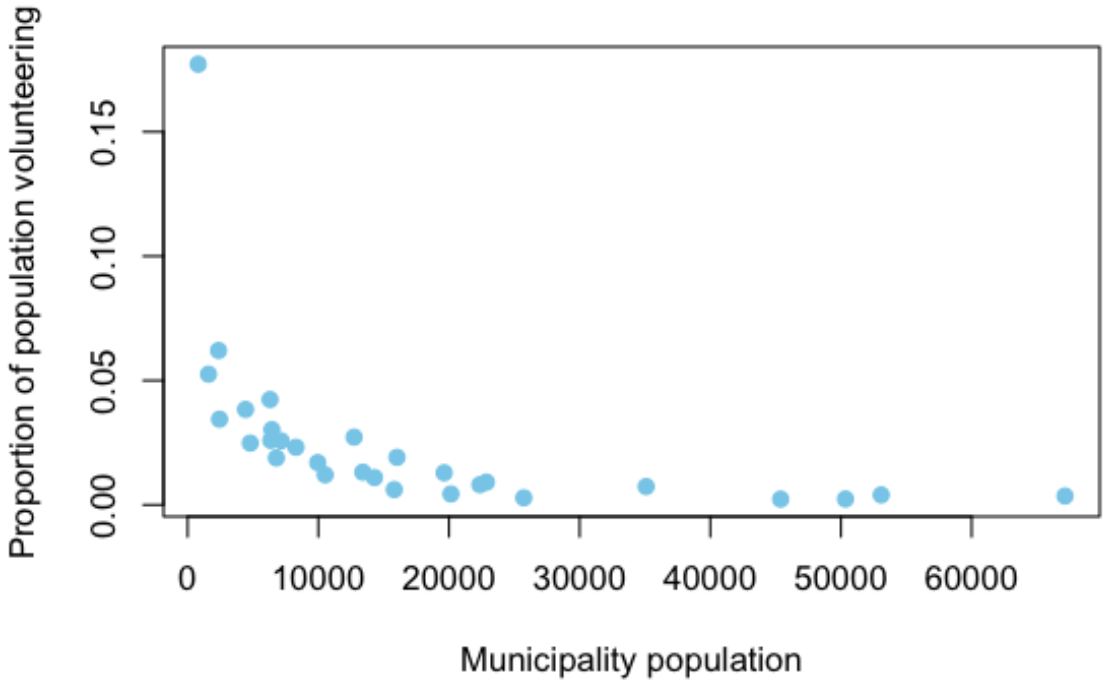

Figure 2.1: EVN Personnel as a proportion of municipal population.

	EVN Total	TFS Total	AT Total	SES Total	Known Multi-Ag. Vol.'s	Known Multi-Ag. Vol.'s (%)	Est. Total Multi-Ag. Vol.'s	Corrected EVN Total
Tasmania	5011	3941	548	522	121	23	248	4763
Break O'Day	195	149	30	16	1	6	3	192
Brighton	97	85	0	12	7	57	7	90
Burnie	88	57	0	31	9	28	9	79
Central Coast	181	155	0	26	0	0	0	181
Central Highlands	147	116	24	7	3	43	14	133
Circular Head	192	142	21	29	6	21	11	181
Clarence	212	184	10	18	6	33	10	202
Derwent Valley	169	124	30	15	4	27	13	156
Devonport	73	47	0	26	4	15	4	69
Dorset	184	153	21	10	2	20	7	177
Flinders	143	113	16	14	9	64	20	123
George Town	128	101	19	8	1	12	4	124
Glamorgan/Spring Bay	170	130	31	9	5	56	23	147
Glenorchy	104	96	0	8	4	50	4	100
Hobart	118	89	0	29	10	34	10	108
Huon Valley	306	257	34	15	0	0	0	306
Kentish	165	120	29	16	3	19	9	156
King Island	84	59	16	9	0	0	0	84
Kingborough	258	227	9	22	8	36	12	246
Latrobe	127	111	12	4	1	25	4	123
Launceston	239	192	0	47	5	11	5	234
Meander Valley	253	199	26	28	7	25	14	239
Northern Midlands	347	293	39	15	4	27	15	332
Sorell	176	112	63	1	1	23	16	160
Southern Midlands	267	230	21	16	8	50	19	248
Tasman	84	57	14	13	1	8	3	81
Waratah/Wynyard	157	110	26	21	6	28	14	143
West Coast	119	68	27	24	2	8	5	114
West Tamar	209	161	29	19	3	16	8	201

Table 2.1: An estimate of the available personnel throughout the Tasmanian Emergency Volunteer Network (EVN). The Corrected EVN Total is the total number of personnel available after accounting for 'Multi-Ag. Volunteers' (i.e. people who volunteer for multiple agencies).

Table 2.2: A comparison of the total population of each region, and the active population of the EVN.

	Municipality Pop.	EVN Pop.	% of Municipality
Tasmania	512334	5011	1.0
Break O'Day	6449	195	3.0
Brighton	15813	97	0.6
Burnie	20148	88	0.4
Central Coast	22365	181	0.8
Central Highlands	2369	147	6.2
Circular Head	8291	192	2.3
Clarence	53081	212	0.4
Derwent Valley	9956	169	1.7
Devonport	25727	73	0.3
Dorset	7152	184	2.6
Flinders	807	143	17.7
George Town	6789	128	1.9
Glamorgan/Spring Bay	4432	170	3.8
Glenorchy	45383	104	0.2
Hobart	50342	118	0.2
Huon Valley	16020	306	1.9
Kentish	6367	165	2.6
King Island	1599	84	5.2
Kingborough	35090	258	0.7
Latrobe	10524	127	1.2
Launceston	67146	239	0.4
Meander Valley	19633	253	1.3
Northern Midlands	12741	347	2.7
Sorell	13407	176	1.3
Southern Midlands	6306	267	4.2
Tasman	2440	84	3.4
Waratah/Wynyard	14298	157	1.1
West Coast	4792	119	2.5
West Tamar	22867	209	0.9

Chapter 3

Milestone 3: The temporal and regional trends observed in the demographic profiles of the EVN and each agency

3.1 Scope

Once the current profile of the EVN was established in Stage 2, this was used as a starting point for projecting levels into the future. The aim of *Milestone 3* was to assess how the EVN may be affected by demographic changes in each municipality. In order to best aggregate the personnel data between the agencies, the demographics of interest were municipality, gender and age. There is limited research that can directly link any changes in volunteer numbers to the general changes in the population, however, it is expected that in more populous areas, there will be a higher number of volunteers than in less populous areas. It is of course possible for those who volunteer to have stronger connections to their local community and are less likely to relocate, however, there has been limited research into this field to quantify this connection. As such, the demographic changes expected throughout the broader community were expected to be reflected in the changes seen in the EVN.

3.2 Methods

The demographic projections presented here are based on demographic model outputs provided by the Tasmanian Department of Treasury and Finance. These projections offer three alternative scenarios of future net migration, birth and mortality rates (Low Growth, Medium Growth, High Growth). The scenarios used for Tasmania are described in Table 3.1 below. The exact values used for each scenario varied for each municipality. These were available from the Department of Treasury and Finance website [4].

The demographic data were analysed to determine the relative change in each decadal cohort through time. A *cohort* was defined by the attributes municipality, gender and age. The changes projected for each cohort were then used to scale how the current EVN is expected to be transformed into the future. Demographic projections were completed for each of AT, SES and TFS individually and for the EVN.

Table 3.1: Scenario descriptions used in the creation of demographic projections for all of Tasmania by the Tasmanian Department of Treasury and Finance.

Series	Fertility Rate	Mortality Rate (Life Expectancy)	Net Interstate Migration Rate	Net Overseas Migration Rate
High	Constant rate of 2.15 babies per woman	To reach 90.8 years for males and 92.5 for females by 2062	Net gain of 1000 people per year	Net gain of 2000 people per year
Medium	2.15 babies per woman in 2013, decreasing to 1.95 babies per woman by 2023 and remaining constant thereafter	To reach 85.4 years for males and 87.5 years for females by 2062.	Zero net interstate migration	Net gain of 1250 persons per year.
Low	2.15 babies per woman in 2013, decreasing to 1.85 babies per woman by 2023 and remaining constant thereafter.	To reach 82.8 years for males and 85.0 years for females by 2062.	Net loss of 1000 persons per year.	Net gain of 500 persons per year.

3.3 Demographic projections of the EVN

Overall, Tasmania's EVN population is expected to increase in number regardless of the projection scenario, ranging from a relatively minor increase of 1% up to an increase of 30%. However, each municipality is expected to change differently based on the demographic projections. The different scenarios result in large differences in the direction and/or the rate of change depending on the municipality (see Figure 3.1 and Table 3.2). Whilst some municipalities are projected to experience population decline in all scenarios, others are mixed—with declines in the low (and sometimes medium) scenario, and growth in the high scenario. Others municipalities are projected to always experience population growth. This reflects the continued urbanisation of Tasmania, as people move into the cities from the country areas. The features to highlight within the projections of the EVN are those municipalities where the direction of change is not affected by the scenario chosen, as these can be managed with greater certainty.

Municipalities that are projected to experience population growth by 2037 in all scenarios are:

- Brighton +30% to +49%
- Kingborough +16% to +59%
- Latrobe +20% to +85%
- Sorell +24% to +52%

Municipalities that are projected to experience population decline by 2037 in all scenarios are:

- Circular Head -15% to -1%
- Dorset -20% to -2%
- Flinders -32% to -10%
- West Coast -25% to -15%

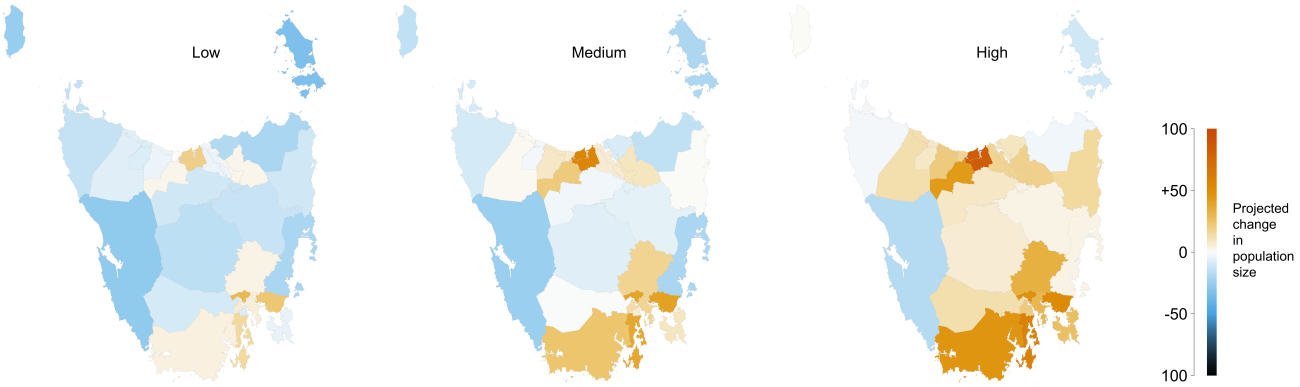

Figure 3.1: Relative change in population size in each municipality of Tasmania from 2012 to 2037 for the three demographic scenarios.

Table 3.2: A comparison of the relative change in the population size in each region by 2037 based on three projection scenarios.

	Low	Medium	High
Tasmania	0.01	0.13	0.25
Break O'Day	-0.10	0.01	0.17
Brighton	0.30	0.40	0.49
Burnie	-0.07	-0.01	0.09
Central Coast	-0.03	0.09	0.22
Central Highlands	-0.15	-0.06	0.07
Circular Head	-0.13	-0.09	-0.01
Clarence	0.06	0.18	0.31
Derwent Valley	-0.09	-0.01	0.12
Devonport	0.01	0.08	0.17
Dorset	-0.20	-0.14	-0.02
Flinders	-0.32	-0.19	-0.10
George Town	-0.18	-0.08	0.10
Glamorgan/Spring Bay	-0.20	-0.20	0.04
Glenorchy	0.07	0.14	0.22
Hobart	-0.07	0.07	0.21
Huon Valley	0.05	0.25	0.47
Kentish	0.03	0.22	0.44
King Island	-0.25	-0.14	0.01
Kingborough	0.16	0.38	0.59
Latrobe	0.20	0.55	0.85
Launceston	0.03	0.10	0.19
Meander Valley	-0.10	-0.02	0.09
Northern Midlands	-0.12	-0.05	0.04
Sorell	0.24	0.41	0.52
Southern Midlands	0.04	0.18	0.34
Tasman	-0.04	0.10	0.27
Waratah/Wynyard	-0.06	0.03	0.13
West Coast	-0.27	-0.24	-0.17
West Tamar	-0.03	0.07	0.18

In all municipalities and across scenarios, the *71-81* and *81+* age groups are expected to grow rapidly in the general population. The increases in these cohorts being some of the largest contributing factors to overall population growth (see Figure 3.2). Whilst the rural municipalities are expected to experience population declines, especially in younger cohorts, the urban municipalities see growth in these younger cohorts (i.e. 20-30, 30-40, 40-50) as younger people move from country areas into the cities. In some municipalities, the growth in these older age groups counteracts the declines in the younger age brackets, softening the change in total population (for a breakdown of each municipality by age see Appendix A). The expected changes to personnel numbers for each agency are presented in Tables 3.3–3.5 with an overall summary of the EVN shown in Table 3.6.

From an emergency management perspective, these demographic changes have important implications.

3.3.1 Older cohorts

There will be a significant increase in the availability of older, experienced individuals who, although perhaps not be physically suited to frontline operations, could be more than capable of leading other roles. These older age groups are not currently a big proportion of the EVN profile. However, as the health, quality of life and capacity of older people improves into the future, there should be consideration of how best to utilise an older workforce, matching their capacity with tasks (e.g. equipment maintenance, communications, training). A division of labour by age cohort may provide a mechanism to spread the overall workload across the network. For example, if day-to-day activities were to make up the bulk of responsibility of the older cohorts, this would release the general workload burden on younger cohorts, allowing them to be more available for the physically more demanding front-line roles as and when they occur. This most likely already occurs in practice, but it is an approach that could be enhanced or further encouraged by promoting certain types of training activities now, allowing individuals to get 10-20 years of experience in these activities prior to growing older.

3.3.2 Younger cohorts

For the younger cohorts, urbanisation will result in an increase in potential recruits in the cities, with an associated decrease in potential recruits in the rural areas. This may mean a change in general management of the statewide network, with large urban deployable teams supporting the much smaller rural deployable teams. This would mean an increase in travel time per incident for individuals, with an increase in overall person-hours per year. However, with a (potentially) larger pool of personnel and the implementation of an active rotation system (if not already present), this additional workload would be manageable. What is clear is that these demographic changes should be considered by management to assess how they may impact on current management structures, protocols and practices.

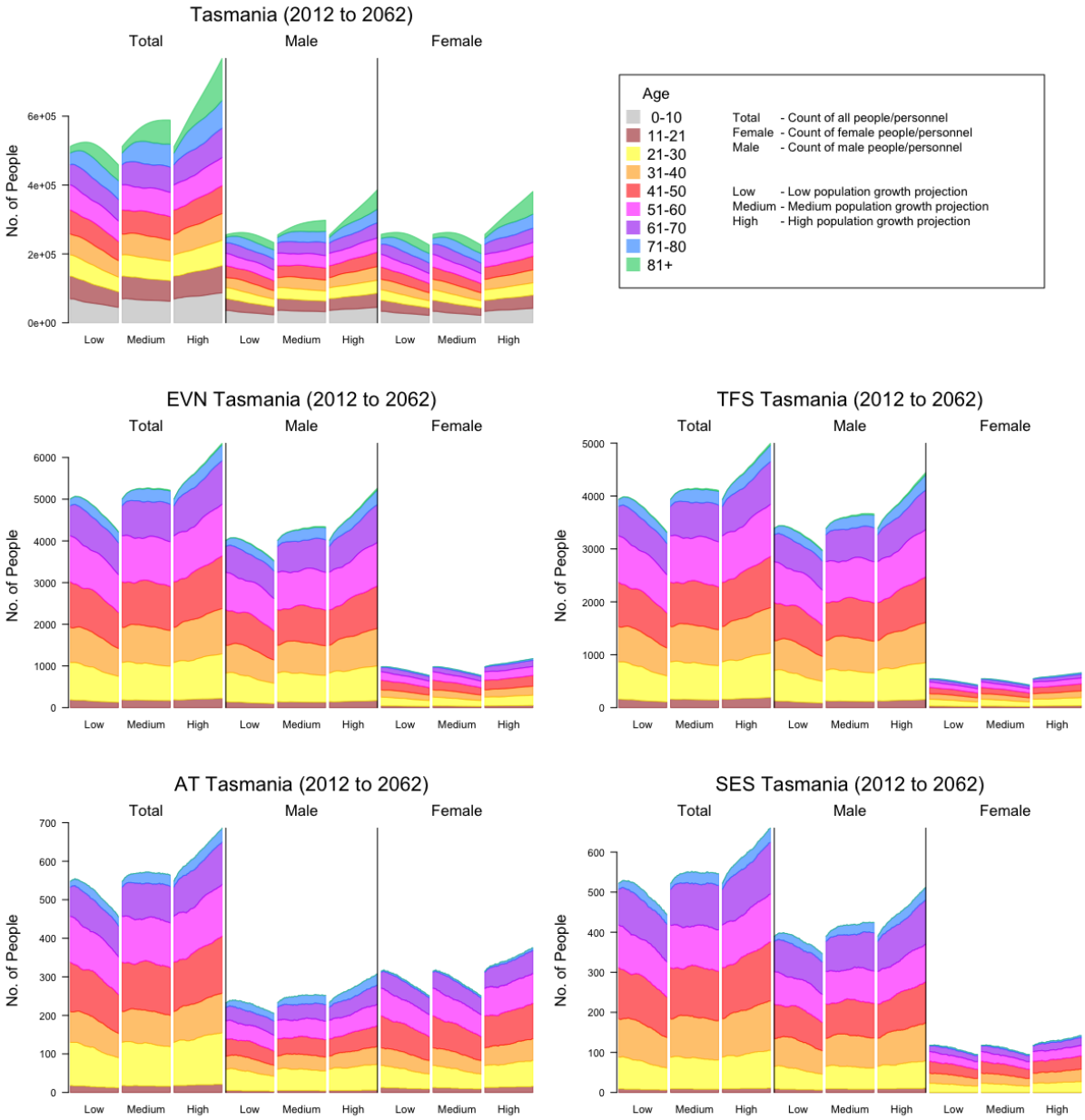

Figure 3.2: Demographic breakdown of the Emergency Volunteer network, broken down by age, gender and agency. Municipality level figures can be found in Appendix A.

Table 3.3: An estimate of the Total available TFS personnel throughout Tasmania currently, and by 2037 based on three different demographic projection scenarios (Low, Medium and High).

	Current	Low Growth	Medium Growth	High Growth
Tasmania	3941	3993	4437	4934
Break O'Day	149	134	151	173
Brighton	85	110	119	126
Burnie	57	52	56	62
Central Coast	155	151	168	188
Central Highlands	116	98	109	124
Circular Head	142	122	129	140
Clarence	184	195	216	241
Derwent Valley	124	112	123	139
Devonport	47	47	50	55
Dorset	153	121	131	150
Flinders	113	77	91	102
George Town	101	82	93	111
Glamorgan/Spring Bay	130	104	104	135
Glenorchy	96	102	109	116
Hobart	89	83	95	107
Huon Valley	257	269	321	378
Kentish	120	123	146	173
King Island	59	44	50	59
Kingborough	227	263	312	361
Latrobe	111	133	172	205
Launceston	192	198	212	228
Meander Valley	199	179	195	216
Northern Midlands	293	258	278	305
Sorell	112	139	157	170
Southern Midlands	230	240	271	307
Tasman	57	54	62	72
Waratah/Wynyard	110	103	112	124
West Coast	68	49	51	56
West Tamar	161	156	172	189

Table 3.4: An estimate of the Total available AT personnel throughout Tasmania currently, and by 2037 based on three different demographic projection scenarios (Low, Medium and High).

	Current	Low Growth	Medium Growth	High Growth
Tasmania	548	555	617	686
Break O'Day	30	27	30	34
Brighton	0	0	0	0
Burnie	0	0	0	0
Central Coast	0	0	0	0
Central Highlands	24	20	22	25
Circular Head	21	18	19	20
Clarence	10	10	11	13
Derwent Valley	30	27	29	33
Devonport	0	0	0	0
Dorset	21	16	18	20
Flinders	16	10	12	14
George Town	19	15	17	20
Glamorgan/Spring Bay	31	24	24	32
Glenorchy	0	0	0	0
Hobart	0	0	0	0
Huon Valley	34	35	42	50
Kentish	29	29	35	41
King Island	16	12	13	16
Kingborough	9	10	12	14
Latrobe	12	14	18	22
Launceston	0	0	0	0
Meander Valley	26	23	25	28
Northern Midlands	39	34	37	40
Sorell	63	78	88	95
Southern Midlands	21	21	24	28
Tasman	14	13	15	17
Waratah/Wynyard	26	24	26	29
West Coast	27	19	20	22
West Tamar	29	28	31	34

Table 3.5: An estimate of the Total available SES personnel throughout Tasmania currently, and by 2037 based on three different demographic projection scenarios (Low, Medium and High).

	Current	Low Growth	Medium Growth	High Growth
Tasmania	522	528	587	653
Break O'Day	16	14	16	18
Brighton	12	15	16	17
Burnie	31	28	30	33
Central Coast	26	25	28	31
Central Highlands	7	5	6	7
Circular Head	29	25	26	28
Clarence	18	19	21	23
Derwent Valley	15	13	14	16
Devonport	26	26	28	30
Dorset	10	7	8	9
Flinders	14	9	11	12
George Town	8	6	7	8
Glamorgan/Spring Bay	9	7	7	9
Glenorchy	8	8	9	9
Hobart	29	27	31	35
Huon Valley	15	15	18	22
Kentish	16	16	19	23
King Island	9	6	7	9
Kingborough	22	25	30	35
Latrobe	4	4	6	7
Launceston	47	48	51	55
Meander Valley	28	25	27	30
Northern Midlands	15	13	14	15
Sorell	1	1	1	1
Southern Midlands	16	16	18	21
Tasman	13	12	14	16
Waratah/Wynyard	21	19	21	23
West Coast	24	17	18	19
West Tamar	19	18	20	22

Table 3.6: An estimate of the Total available EVN personnel throughout Tasmania currently, and by 2037 based on three different demographic projection scenarios (Low, Medium and High).

	Current	Low Growth	Medium Growth	High Growth
Tasmania	5011	5077	5642	6273
Break O'Day	195	175	197	227
Brighton	97	126	135	144
Burnie	88	81	87	96
Central Coast	181	176	196	220
Central Highlands	147	124	138	157
Circular Head	192	166	175	189
Clarence	212	224	249	278
Derwent Valley	169	153	168	190
Devonport	73	73	79	85
Dorset	184	146	158	180
Flinders	143	97	115	129
George Town	128	104	118	141
Glamorgan/Spring Bay	170	136	136	177
Glenorchy	104	110	118	126
Hobart	118	110	126	142
Huon Valley	306	320	382	450
Kentish	165	169	202	238
King Island	84	63	72	84
Kingborough	258	299	355	410
Latrobe	127	152	196	235
Launceston	239	246	263	284
Meander Valley	253	227	249	274
Northern Midlands	347	306	329	361
Sorell	176	218	247	267
Southern Midlands	267	278	315	356
Tasman	84	80	92	106
Waratah/Wynyard	157	147	160	176
West Coast	119	87	90	98
West Tamar	209	202	224	246

Chapter 4

Milestone 4: The overall temporal and regional trends of total climate hazard danger

4.1 Scope

The global climate is warming and the role of humans as a significant contributor to this change is unequivocal [5]. A component of this project was to estimate the cumulative change in the danger of all natural hazards that may be experienced due to climate change.

The future fire danger has been well established in a previous report, but the danger from other sources is less certain. A preliminary analysis proved that a full investigation and report into all other hazards was out of scope, but indicative indices could be achieved within the limited resources provided. A review of previous work [6, 7, 8, 3] indicated wind was unlikely to have any significant changes and coastal inundation had such a constrained area of impact (within 10s of metres from the shore), and was so limited in its historical evidence, that it was not possible to include it as a specific hazard.

Total natural hazard danger was estimated by combining the indices for Forest Fire Danger (bushfire), maximum run-off rate (flood danger) and chance of exceeding the maximum decadal temperature (heat stress). These hazards were selected because they pose the greatest danger to Tasmanians (see TSNDRA 2016), and because they were reasonable to assess with climate projections. Both flood and heat stress indices were included in this project to provide additional indications of the climate driven proportion of workload for SES and AT respectively, as distinct from bushfire danger (already completed and obviously important for TFS).

4.2 Methods

The *total natural hazard danger* index across Tasmania was calculated by combining the results of natural hazard proxies for bushfire, flood and heat stress. These proxies were derived from the Climate Futures for Tasmania high resolution climate model projections[1, 9]. Although a robust and effective estimate of future bushfire danger has already been produced for Tasmania [10, 11, 3], no such work has been completed for either flood or heat stress. As a consequence, simple proxies that capture the broad nature of flood and heat stress events were adopted.

The Climate Futures for Tasmania project undertook an extensive study of future rainfall-runoff, incorporating downscaled climate projections into a series of hydrological models configured for Tasmania [2]. This produced an ensemble of 36 future statewide simulations of rainfall-runoff. While the relationship between rainfall-runoff and flood is highly complex and non-linear, there is an underlying assumption extreme runoff can be used as a proxy for the propensity of an area

to flood. Therefore in this study, the 99.9th percentile runoff value—representing the *1 in every 3 year event*— is indicative of situations requiring response from the emergency services.

An estimate for heat stress was calculated by counting the number of days above the hottest day in the base period (1961–1990). The assumption was that the hottest days often occur during heatwaves and are associated with increased load on the Tasmanian Ambulance Service. This approach applies the findings of recent work [12], that links heatwave events to a 30% increase in Ambulance Tasmania callouts. It also responds to research that has associated heatwave with the largest number of deaths by any natural hazard in Australia [13]. As such, although heatwave has limited emergency response at present, this is likely to change and has therefore been included in this assessment.

These indicative proxies were calculated for each time-period—1960–1979, 1980–1999, 2000–2019, 2020–2039, 2040–2059, 2060–2079 and 2080–2099. Subsequently the relative change in the danger compared to the base period (1961–1990) was calculated. The relative change was deemed more relevant to how the volunteer network would respond to climate hazards (as opposed to absolute change), as it can be more directly associated with workload (investigated in Chapter 5). These 'data layers' for each hazard were combined to create the *Total natural hazard danger* data layer. As FFDI and heat stress are strongly related, the average of both was used before combining with the flood danger proxy. The mean spatial danger was then calculated for each time period within each municipality.

4.3 Temporal and regional trends in each climate hazard danger

Temporal and regional trends in each of the climate hazard danger estimates—FFDI, Flood and Heat Stress—are presented in Figure 4.1.

4.3.1 FFDI

A full report on the changes expected for FFDI into the future is available [3] and this is the most robust estimate of any future climate danger in Tasmania as yet carried out. The relative rate of change of the FFDI within each municipality was not investigated previously and the analysis in this study reveals a slightly different yet complementary picture. The FFDI gradually increases in every municipality to 2080–2099 with a minimum change in relative danger of 1.2× (a 20% increase). The rate of change varies across the state. The maximum rate of projected change is in the West Coast municipality, with an mean increase of 1.6× (a 60% increase) the current danger by 2080–2099. This highlights how the drying of Tasmania's west, central and southern regions into the future (a glimpse of which was experienced in the summer of 2016) results in a more rapid increase in the relative danger of future fire in the west compared to the east of the state. However, at present the west has a lower danger of fire than the fire-prone east, so it is moving off a lower base and changes are therefore larger in a relative sense. Absolute bushfire danger as estimated by FFDI is still greater in the east of the state.

4.3.2 Heat stress

In agreement with previous studies by the Climate Futures for Tasmania project [6], heat-related stress is projected to increase across the state, with a particularly large increase expected in the central and north eastern municipalities. Heat stress was found to be the most rapidly increasing natural danger, with some areas projected to experience an increase of more than 7× the current levels by 2080–2099. This large relative increase is in part due to the very low occurrence of extremely hot days in the base period, but it strongly reflects the transition into a much hotter

world in the future. Statewide there is projected to be an increase of at least 3× the current levels by 2080–2099. Interestingly, the pattern of where the relative danger in heat stress increases differs from FFDI, highlighting the different mechanisms in place. FFDI changes are linked to soil moisture levels and preceding conditions, whereas heat stress is an assessment of conditions at a point in time. As more research is conducted into the links between heat stress and human health, agricultural production and infrastructure longevity, these projected changes will have greater relevance and context.

4.3.3 Flood

Flood danger estimates exhibited a different pattern to both FFDI and heat stress. The phenomena that drive rainfall of all kinds (including extreme rainfall) have long cycles, with multi-year, decadal and even bi-decadal return periods. As such, sustained periods without severe floods are expected. This is reflected in the projected results, with two periods where the projected danger is much larger than the other four periods. Underlying these large increases is a general increase in flood danger statewide, about a 20% increase by 2080–2099, although this is much higher for the municipality of Flinders, which has a consistent 50% increase in flood danger from 2040 onwards—probably due to a change in the synoptic systems coupled with an increase in the water-holding capacity of the atmosphere as it warms. The relative change in danger generally follows the regions where flood is currently most likely. The central, north-east and eastern regions should expect a 50–200% increase in the severity of flood danger by 2080–2099.

It must be noted that these projections should not be used as predictions of *when* these flood events will occur. These simulations are an indication of the change in the frequency and intensity of this hazard as the climate changes. Natural variability is well-represented in the models and these larger events could be unrelated to any projected climatic changes, but still represent a future climate danger that must be managed.

4.4 Temporal and regional trends of projected total climate hazard danger

Given the different patterns exhibited across the state by each of the different hazards, it is not surprising that the rate at which the *Total natural hazard danger* is projected to change into the future also varies across the state. In agreement with historical records, minimal change was projected by 1981-2000. The central and north-east regions are expected to have the most rapid increase in *total natural hazard danger*, with about a doubling of total natural hazard danger by 2040–2059. This is mostly due to the combined impact of heat stress and flood hazards. Projected levels of *total natural hazard danger* are expected to double in almost every municipality by 2060–2079, and almost triple by 2080–2099 (see Figure 4.2). The mechanisms that underpin these changes differ per municipality and will be an important consideration in the future management of these regions. Future change in FFDI and flood danger are of approximately the same scale, increasing by about 50% each, however, heat stress is expected to increase at a much larger rate. It must be noted that these hazards have not been scaled to reflect the expected damage or impact of one hazard compared to another. An effort to incorporate these relative differences in damage or impact was incorporated into the next stage, where future climate danger was used alongside demographics and estimates of current volunteer annual workload to project changes in future resource requirements.

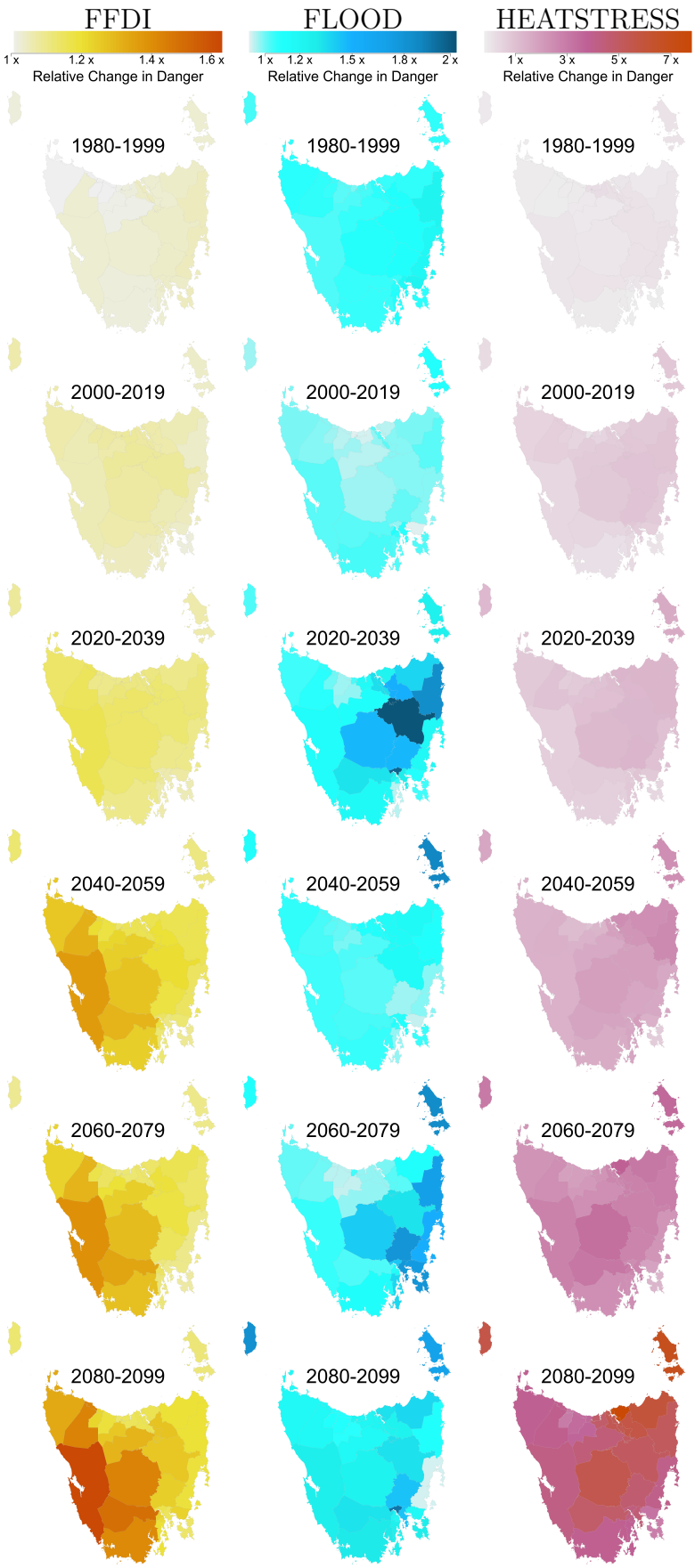

Figure 4.1: A representation of the change in Danger through time for each municipality compared to the base period (1961-1990). Where a relative change of 2x is a doubling of the Danger as experienced in the period 1961-1990. FFDI refers to the propensity for fire weather conditions in each region based on the *forest fire danger index*. FLOOD refers to the propensity for flood inducing conditions based on the frequency of the most extreme runoff values. HEATSTRESS refers to the number of days hotter than the hottest day in the base period.

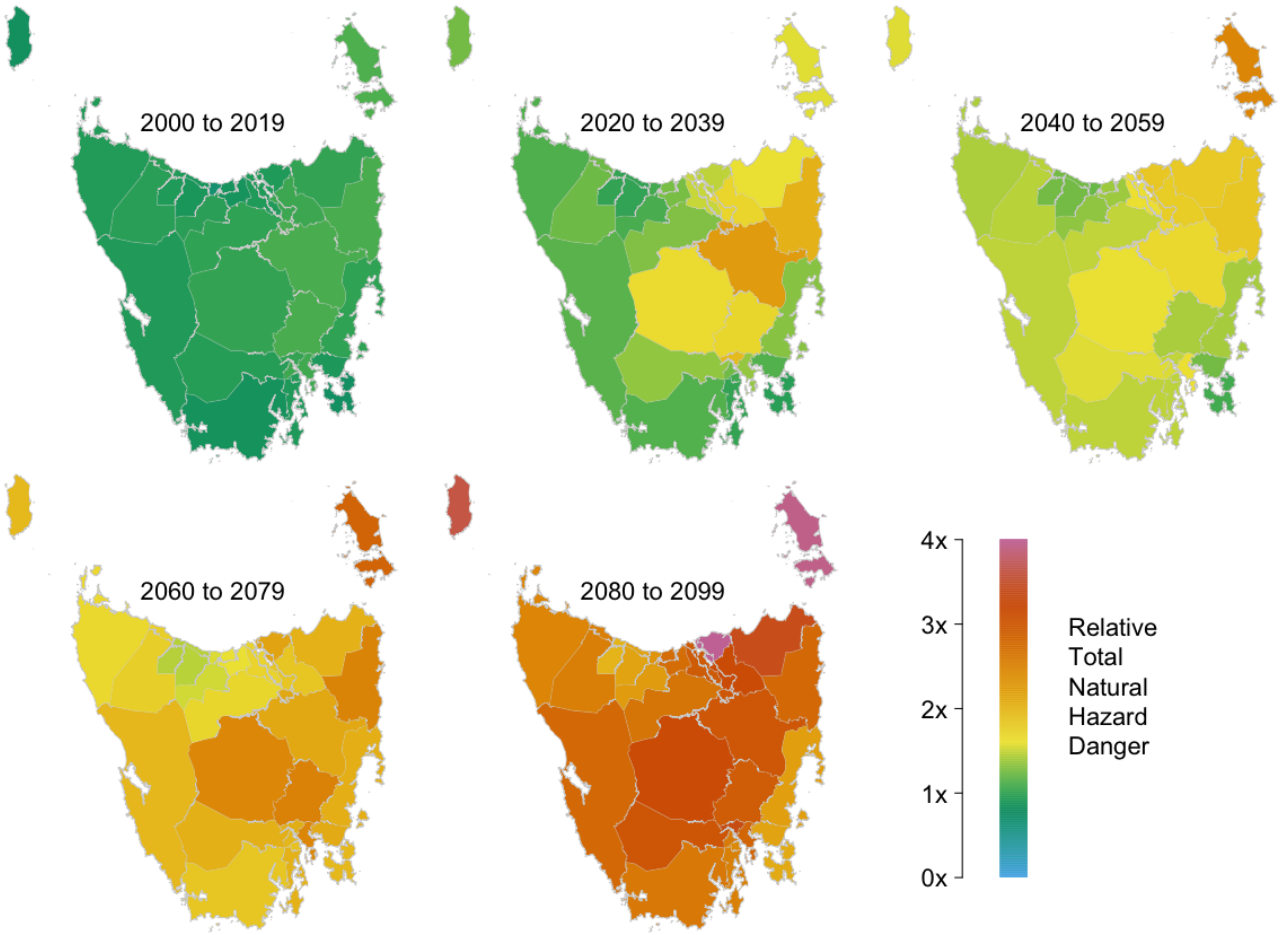

Figure 4.2: This figure presents the average increase in *Total natural hazard danger* for each municipality in a range of future periods relative to 1961–1990. The colour scale represents the increase in total natural hazard danger.

Chapter 5

Milestone 5: A projection of future personnel requirements for the Emergency Volunteer Network

5.1 Scope

It was recognised by the executives of the emergency management network that the interaction between demographic changes (urbanisation, an ageing population) and climatic shifts (hotter, drier conditions and propensity for more intense rainfall) could result in significant capacity gaps in some municipalities. The aim of this milestone was to combine current estimates of annual incident workload with the demographic and climatic future projections to estimate the future personnel requirements for the EVN (which, to reiterate, for this study only includes AT, SES and TFS).

5.2 Methods

5.2.1 Estimating annual incident workload

The best available incident data was provided by each of AT, SES and TFS. This was used to estimate current annual workload for the volunteer portion of their respective workforces. Data from each agency were in fundamentally different formats, requiring customised approaches to analysis. Each dataset had its own strengths and limitations. Although it was clear the very best efforts had been made to collect quality records, all datasets contained errors in some form or another.

Ambulance Tasmania incident data

Strengths Ambulance Tasmanian data were in a standardised, accessible format that was very easy to investigate and manipulate. It was clear that AT has a culture that strongly supports the collection of operational data. Anecdotally this was attributed to two dominant factors. One factor was that the nature of the job appeals to people who are data savvy (i.e. they are often required to record precise detailed measurements such as heart rate and breath rate). Another factor is a general appreciation for the value of accurate record keeping, so that the actions during an incident can be traced to ultimate outcomes and responsibility for those outcomes can be correctly assigned (medically and legally).

AT were able to provide data specifically for those incidents responded to by their volunteers, naturally improving the quality of the subsequent workload estimates. This is important because

AT have a combined workforce, with many professional emergency response staff who deal with the bulk of incidents and/or complex cases.

The data provided also had highly detailed temporal and spatial information, as well as excellent categorisation of incident types. This allowed for relatively accurate attribution of workload to specific areas in space and time.

Identified issues and solutions Although it was clear the best efforts were made to collect reliable data, mistakes and omissions can and do occur given the intense nature of the work. For example, although *incident start time* was always present, *incident end time* was not, so in these cases the actual duration of an incident was missing. As such, where a duration could not be ascertained, the 'median duration' of all events was used. This approach is expected to introduce minimal error to the overall estimates as the duration of incidents were all relatively short, with none greater than 1 day and 90% of incidents less than 3 hours. It must be noted that longer incidents are more likely to have a missing *incident end time*, therefore, if this analysis of the incident data does not match with anecdotal knowledge it would be worth reviewing and correcting the appropriate database entries. This adjust was required for 14% of all records provided.

The incident categorisation system used by AT, understandably does not incorporate any climatic information. Appropriate data on severe weather events was not available for use within the timeframes of this project. As such, it was not possible to directly investigate and attribute general climatic factors to incident callout rates. Recent work by Sharon Campbell [12] has associated heatwave events with a temporary increase in incidents of about 30%. Her findings were used to project the climate related increase of workload for AT into the future (more details are below).

Human effort estimates A *human effort index* was estimated by calculating the annual sum of incident durations and multiplying this by the number of personnel typically dispatched. Converting an event duration into person-hours requires knowledge of the number of people required per incident, but the number of personnel dispatched to a particular event was not recorded. After discussion with AT experts, it was decided that in general 2 people are dispatched to each incident so this was used to scale the overall workload index values.

Tasmania State Emergency Service incident data

Strengths The incident data provided by the SES was very comprehensive. Of particular value to this project were the *person-hours* estimates. This provided a mechanism to estimate the annual workload relatively easily. There is a wealth of information within the incident descriptions logged by operational personnel over recent years. This information is sufficient to estimate the type of incident that was attended, and in many cases the possible causes. As such, it was reasonable to categorise the SES data into loose incident types.

Identified issues and solutions The incident data provided by SES is largely collected in non-standardised text fields. This creates significant issues for data analysis. Fields were prone to inaccuracies, errors and use of non-standard terminology. A lack of standards introduces the potential for error in subsequent analysis.

Address fields were difficult to handle, with many errors in street, town, or location names and numbers with a range of typical arrangements used both within fields, as well as differences between similar data fields. This is typical for a 'free-text' style data input system. As the technology now exists for addresses to be selected from a list, such a system is recommended to be implemented to improve data quality.

The incident description fields were particularly difficult to investigate, due to their 'free-form' nature, with a lack of agreed nomenclature or terminology. Although some very valuable information and insights are contained within this field, this information was very difficult to access, analyse and summarise in a robust, repeatable way. Using a range of techniques typically

used for investigating unstructured data (e.g. summarising tweets posted to Twitter), a reasonable attempt was made at extracting the incident type (and/or cause) and subsequently quantifying the annual frequency of each type. Incident categories were not mutually exclusive, as it was recognised that in some cases a single incident could in fact involve multiple incident types (e.g. a car accident caused by stormy weather is categorised as both *vehicle* and *climate*).

Human effort estimates The SES routinely allocate *person-hours* in their incident reporting. This provided the most accurate estimate of human effort in this study. However, the SES respond to a vast range of different kinds of incidents. These were separated generally as *climate hazards*, *non-climate hazards* and *mixed hazards*. *Climate hazards* were those expected to be directly influenced by changes in climate danger. These incidents were associated with wind, flood, bushfire and storms. These were independently identified and analysed. *Non-climate hazards* were those incidents associated with demographic change. These were broadly categorised as *vehicle accidents* and *missing persons*. *Mixed hazards* were those incidents likely being driven somewhat by both climate and demographic factors. These incidents were associated with *assisting other agencies* and *cancelled callouts*. Identification of these incident types allowed the different kinds of incidents to be projected into the future independently, using the most appropriate driving factor, or factors. Keeping this in mind, the sum of all categories was then used to calculate the *human effort index*. This approach allowed the combination of different kinds of projections. As some of the incidents were classified as multiple categories, these were effectively being 'double counted', however, this issue is addressed during conversion into personnel requirements.

Tasmania Fire Service incident data

Strengths TFS data was in a standardised format, which was easy to manipulate and analyse.

This was the longest historical record of incident data provided and that gave greater confidence of the typical incident load per year.

The supplied TFS incident data was only for vegetation fires as these are the types of fires most associated with climate hazards.

Area burnt estimates gave an excellent opportunity to rate the severity of each incident and this was used to estimate the overall workload required to control a particular event.

Identified issues and solutions It was noted by the TFS staff that the database was in urgent need of an upgrade. There is limited capacity to include new fields, and therefore, limited capacity to adapt the database for the current needs of the organisation. The output from the database reflects this limitation.

The temporal information collected is very coarse, only including the date, not the time, with the minimum event duration being 1 day. This limits the accuracy of estimated workload.

Similarly, the number of personnel dispatched/attending a particular incident has not been recorded. Therefore, the conversion of incidents into person-hours is a basic estimate. Discussions with TFS staff suggested an estimate of 4 people per incident was a good assumption, with the over-estimate many smaller events counteracting the few larger events that would be under-estimated.

No records of any non-fire related incident response were provided.

Human effort estimates TFS workload was estimated using a *human effort index*. Incidents were separated into each municipality, and then into each year. The subsequent human effort for each year was calculated by multiplying the incident duration by the area burnt. The general assumption was that bigger, longer fires require more effort than smaller fires. In the absence of an area burnt value, discussion with TFS staff suggested a value of 1 was reasonable.

Given that the incident data provided by TFS was for vegetation fires only, after discussion with TFS staff it was deemed reasonable to associate all of the calculated human effort index with climate related factors, as demographic growth or decline would not impact on the frequency of these incidents. As the TFS are involved in the emergency response to all natural hazards

(not just fire), it is reasonable to use the total natural hazard danger index to estimate future workload, rather than just the FFDI projections.

Therefore in order to project the future workload, human effort index was multiplied by the relative change in the total natural hazard danger index for each time period into the future.

5.2.2 Classification of years based on workload

The demands on the EVN from society are not constant. They ebb and flow with the changes in weather, demographic and social conditions. As such, the workload experienced by the entire network, and each agency within that network, varies from year to year. It was important to model the current range in workload experienced by the EVN in the future projections, as it is all too easy to focus on the extremely bad years, without recognising the intervening periods. To capture the relative inter-annual variability in this analysis, the *annual human effort index* was used to define a *Low incident year* (the 20th percentile), a *Typical year* (the 50th percentile) and a *High incident year* (the 80th percentile), both statewide and within each municipality. These values were then used for the basis of subsequent future projections.

5.2.3 Definition of the range of projected futures

The demographic projection used three alternative futures: low growth, medium growth and high growth scenarios. The climate model projections used six separate global climate model, all based on a high emissions scenario—which we are currently exceeding. The different models offer a range of potential futures. This range is important to reflect in the results.

For this study, the two different projections were combined, to report on three possible futures:

- Low demographic growth, lower climate hazard danger
- Medium demographic growth, mean climate hazard danger
- High demographic growth, higher hazard danger

Climate hazard danger ranges were defined as the multimodel minimum (lower), multimodel mean (mean) and multimodel maximum (higher) values. These three options were chosen to cover the range of future possibilities.

5.2.4 Conversion of workload indices into personnel requirements

Personnel requirements for all time periods for each agency (AT, SES and TFS) were calculated by incorporating three components:

- Current personnel numbers
- Current statewide aggregated *annual human effort index* during a *High incident year*
- Current and future projections of *annual human effort index*

The current EVN was assumed to be capable of managing a *High incident year* (a busy year, not a catastrophic year), and therefore, each individual could be associated with a particular portion of the overall workload. This provided a conversion factor from *annual human effort index* to *personnel required* and was done at a statewide level, to recognise that municipalities do not operate in isolation. Applying this process to each agency separately maintains internal consistency and accounts for known issues before converting into personnel numbers. The independent personnel estimates for each agency were then aggregated for the EVN estimates.

For each agency, in each time period and each municipality, the personnel requirements were calculated for each year type (low, typical and high) under each projected scenario (low, mean and high danger).

These estimates are based on current practice and technology. Technological changes in the way emergencies are managed could greatly influence the number of personnel required to achieve the current level and scope of response. No technological improvements have been considered or incorporated into these projections.

5.2.5 Estimating future personnel gaps

Estimating the potential personnel gaps (which could be termed the recruitment challenge) that each agency may experience was achieved by finding the difference between the personnel requirements and the projected future workforce. Demographic projections were only available to 2060, so past this time period, personnel requirements are based purely on the change in *total natural hazard danger*. For each agency, in each time period and each municipality, the difference between the personnel requirements in each year type (low, typical and high), for each projected future (low, mean and high danger) were calculated.

5.3 Current incident workload for the Emergency Volunteer Network

5.3.1 Ambulance Tasmania

AT volunteers have responded to about 27,800 incidents between 2004 and 2015. In a typical year they respond to about 3,000 incidents state wide, and this ranges from 2,600 in a *low incident year* to 3,200 in a *high incident year*. Typical incident durations are 2 hours, with most less than 3 hours.

5.3.2 Tasmania State Emergency Service

SES volunteers have responded to about 4,200 incidents between 2009 and 2015. These incidents can be broadly categorised as 60% *vehicle accident*, 40% *climate hazard*, 15% *missing person*, 30% *assisting other agencies* and 10% *cancelled callouts* (note that because a single incident can be associated with multiple categories, these percentages total greater than 100%). In a *typical year* they respond to about 600 incidents, and this ranges from about 400 in a *low incident year* to 850 in a *high incident year*. A typical incident duration is about 1.5 hours, with 90% of incidents less than 6 hours. Only 1% of incidents are greater than 1 day in duration.

5.3.3 Tasmania Fire Service

TFS volunteers have responded to about 42,700 vegetation fires between 1993 and 2015. Of these fires, 90% were extinguished on the same day (i.e. small fires), 8% were extinguished within a week (i.e. large fires) and 2% burned continuously for more than a week (i.e. very large fires). In a *typical year* they respond to about 2,000 fires, and this ranges from about 1,500 in a *low incident year* to 2,200 in a *high incident year*. The area burnt in a *typical year* is about 17,000 ha and this ranges from about 7,000 ha in a *low incident year* to 53,000 ha in a *high incident year*

5.4 Future personnel requirements for the Emergency Volunteer Network

Personnel requirements and projected gaps per municipality, as well as a breakdown of the specific requirements for each agency, are presented below for the EVN. The pattern of projected requirements is completely different for the three agencies, highlighting the different factors at play in each municipality across the state. Some municipalities will have ample resources for the projected workloads, whilst others will not. The results suggest there will be significant capacity to share the overall workload between municipalities, although significant recruitment, on a statewide basis, will be required.

5.4.1 Emergency Volunteer Network

The personnel requirements for the EVN across the state in a *high incident year* is currently about 4,500 people. This increases by about 50% to 6,800 people by 2060 (and by 120% to 10,300 people by 2100). The number of personnel available by 2060 is projected to be about 5,400 (following current recruitment rates and strategies). This results in a potential recruitment target of about 1,400 additional new recruits that would need to be enlisted.

The personnel required to manage a *typical year* in 2060 is projected to be equivalent to those required for a *high incident year* in 2000. The personnel required to manage a *low incident year* in 2100 is projected to be equivalent to those required for a *high incident year* in 2000.

The future personnel requirements, available personnel and recruitment targets varied significantly across the state. Personnel requirements increased across all municipalities. However, personnel availability (i.e. the projected number of volunteers) was highly variable. In some municipalities the number of available volunteers decreased slowly, whilst in others they increased substantially. The required personnel and the available personnel were not correlated, this is to be expected as demographic change (i.e. the urbanisation of the population) is independent of any climate related changes. The projected recruitment targets for each municipality varied significantly, with some municipalities projected to have a surplus of available personnel (such as Kingborough, Latrobe and Kentish), while others may experience significant personnel shortages (such as Brighton, Clarence and Launceston). This variability is presented in Figure 5.1.

These results are further complicated by the range of possible futures as projected by the different model–scenario combinations. To reflect this range, both the multi-model minimum (the *low incident year and low climate danger*) and the multi-model maximum (the *high incident year and high climate danger*) are presented in Figure 5.1. This possible future range is presented to reflect the *best case* and *worst case* possible futures and shows there are three main types of municipalities. These municipality types are: those projected likely to be endowed with surplus available volunteers regardless of the possible future; those projected likely to suffer deepening shortages of available volunteers regardless of the possible future; and those where the likelihood of surplus or shortages of available volunteers depends on the possible future we experience.

The surplus of available personnel in some municipalities provides some capacity for the EVN to manage any shortages in other networks. This is a practice that already exists, especially during extreme events. However, the rate of climatic changes is greater than projected population growth, and therefore, existing recruitment rates and strategies will be insufficient to keep track with statewide workload into the future.

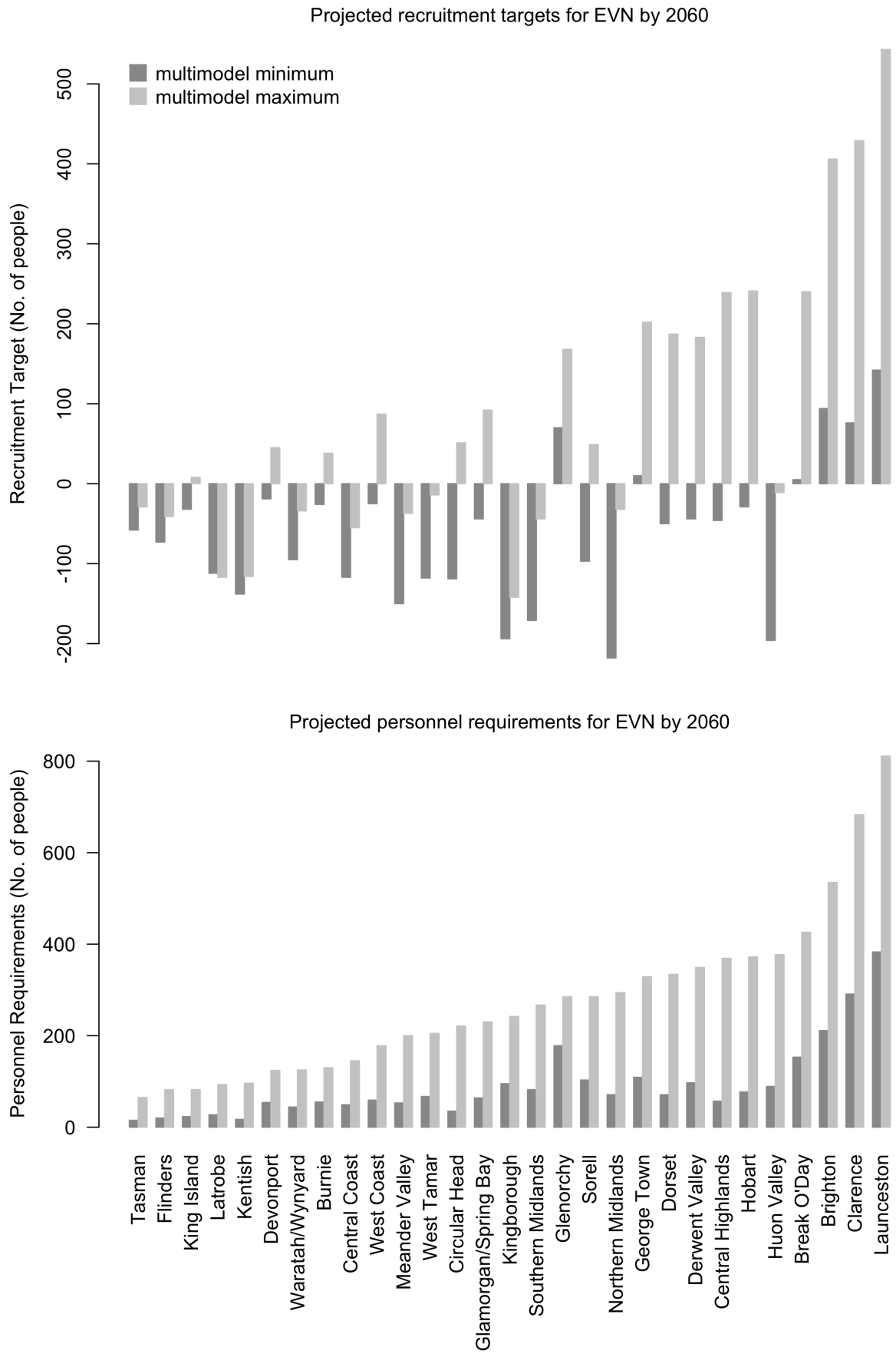

Figure 5.1: Projected personnel requirements (bottom panel) and potential recruitment targets (top panel) by 2060 for the EVN in each municipality of Tasmania.

5.4.2 Ambulance Tasmania

The personnel requirements for AT across the state in a *high incident year* is currently about 550 people. This increases by 30% to 710 people by 2060. This increase is due to a larger population, the additional needs of an ageing population, and increases in heat stress related incidents. The number of personnel available at present is about 550, which by 2060 is projected to increase by about 5% to 570 people (but could decrease to as low as 460 in a low growth scenario). This results in a potential recruitment target of about 130 additional new recruits (this is similar in a low growth scenario due to the decreased demand of a smaller population).

The personnel required to manage a *low incident year* in 2060 is projected to be equivalent to those required for a *typical year* in 2000. The personnel required to manage a *typical year* in 2060 is projected to be equivalent to those required for a *high incident year* in 2000. This suggests there will be decreasing opportunities for psychological recovery periods in the future.

AT workload is strongly associated with demographics (more than 95% of all incidents). As demographic projections are only available to 2060, personnel requirements and availability cannot be projected past this period.

Overall potential recruitment target results are probably due to a range of factors. The urbanisation of the younger cohorts reduces recruitment rates in rural areas, without transfer of potential recruits into some urban AT units. This is due to the absence of volunteer units in some urban centres, which are managed by professional staff. Whilst the number of personnel available in rural areas decreases, the number required increases due to growth of the 70+ age cohort(s). The 70+ age cohort grows so rapidly that they maintain the total rural population, despite the significant decline in size of the younger cohorts. This maintains the background personnel requirements, but does not replenish the personnel available. As older people typically require more medical assistance, this change in the demographic profile adds an additional load to the projected number of personnel required. As such the recruitment challenge will grow through time if urbanisation continues, life expectancies increase and current AT volunteer recruitment strategies are maintained.

The future personnel requirements, available personnel and recruitment targets varied significantly across the state. Personnel requirements increased across all municipalities by 2060, except for West Coast, where an overall decrease in population size is expected, resulting in lower AT workloads by 2060. Personnel availability (i.e. the projected number of volunteers) was relatively stable, or decreased in most municipalities through time, with the exception of Kingborough, Latrobe, Huon Valley, Kentish and Sorell). It must be noted that areas of high population (e.g. Hobart, Launceston, Devonport and Burnie) are currently not identified as recruitment zones (in this study), with no associated volunteer units. The required personnel and the available personnel were not correlated, which is unexpected as demographic change and AT workload are highly related. This is probably due to the change in the demographic profile (an ageing and thus more demanding population) coupled with increased climate induced heat stress.

The projected recruitment targets for each municipality varied significantly with some municipalities projected to have a surplus of available personnel (such as the Kentish, West Tamar and Meander Valley), whilst others are projected to experience personnel shortages (such as Break O'Day, Glamorgan/Spring Bay and Kingborough). These results are further complicated by the range of possible futures as projected by the different model-scenario combinations. To reflect the *best case* and *worst case* possible futures both the multi-model minimum (the *low incident year and low climate danger*) and the multi-model maximum (the *high incident year and high climate danger*) are presented in Figure 5.2. AT has three main types of municipalities: those projected to be endowed with surplus available volunteers regardless of the possible future; those projected likely to suffer deepening shortages of available volunteers regardless of the possible future; those municipalities currently not captured as recruitment zones, or not captured by the methods of this study (personnel details were not provided, so exactly where volunteers live

is unknown).

The surplus of available personnel in some municipalities provides some capacity for AT to manage any shortages in other areas. However, given the relatively short response times required and the short duration of typical incidents, these surpluses are unlikely to be of any great benefit for typical incidents (given the additional travel time that may be required from those out-of-area), although sharing of the load may be possible in some cases, such as taking responsibility for planned activities.

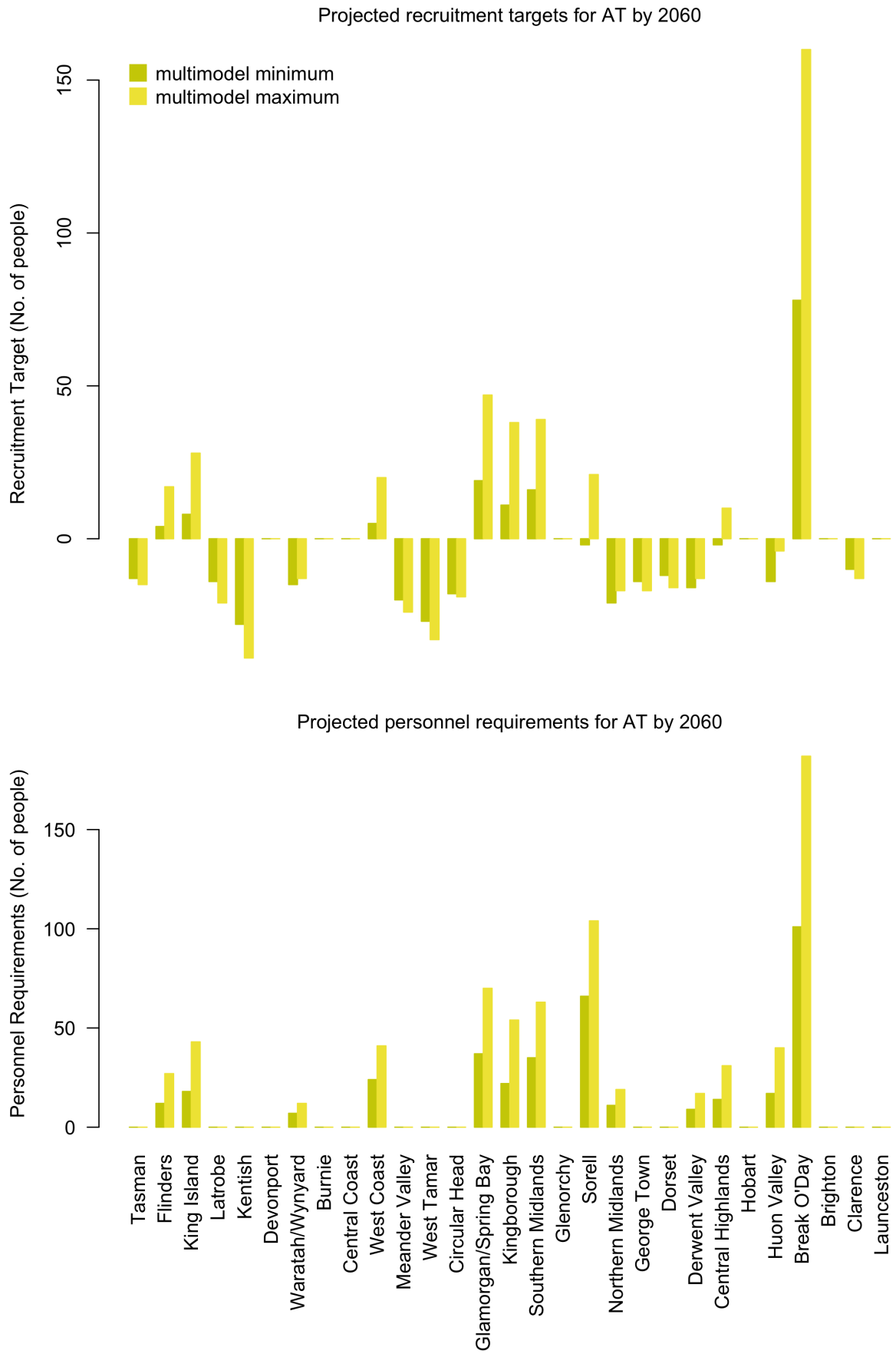

Figure 5.2: Projected personnel requirements (bottom panel) and potential recruitment targets (top panel) by 2060 for AT in each municipality of Tasmania.

5.4.3 Tasmania State Emergency Service

The personnel requirements for SES across the state in a *high incident year* is currently about 520 people. This increases by about 45% to 770 people by 2060 (there are no estimates available past 2060). The number of personnel available by 2060 is projected to remain stable, increasing by about 5% from 510 to about 540 people (but could be as low as 460 people in a low growth scenario). This leaves a potential recruitment target of about 230 additional new recruits.

There is significant inter-annual variability in the SES personnel requirements, with a 4-fold difference between requirements in a *low incident year* versus a *high incident year*. Both *low incident years* and *typical years* have such low demands, that neither scenarios increase to be equivalent to a current *high incident year* by 2060. *Low incident year* requirements are still lower than those of a *typical year* in 2000, and *typical year* requirements are still lower than those of *high incident year* in 2000. This suggests there will be continued opportunities for psychological recovery periods in the future.

SES workload is strongly associated with demographics, where about 60-70% of all incidents would be expected to change with population size and profile. As demographic projections are only available to 2060, personnel requirements and availability cannot be projected past this period. The SES workload is also significantly influenced by climate hazards, where about 40% of incidents would be expected to change with climate change. The dynamic interplay between demographic and climatic change is not so obvious when viewing Tasmania as a whole, however, the changes within each municipality can be very different, especially potential recruitment targets, as a decreasing local population coupled with an increasing *total natural hazard danger* can result in large personnel deficits.

The projected recruitment targets for each municipality varied significantly with some municipalities projected to have a surplus of available personnel (such as the Launceston, Burnie and Kingborough), whilst others are projected to experience personnel shortages (such as Sorell, Central Highlands and Huon Valley). These results are further complicated by the range of possible futures as projected by the different model-scenario combinations. To reflect the *best case* and *worst case* possible futures both the multi-model minimum (the *low incident year and low climate danger*) and the multi-model maximum (the *high incident year and high climate danger*) are presented in Figure 5.3. SES has three main types of municipalities: those projected to be endowed with surplus available volunteers regardless of the possible future; those projected likely to suffer deepening shortages of available volunteers regardless of the possible future; and those where the likelihood of surplus or shortages of available volunteers depends on the possible future we experience.

The surplus of available personnel in some municipalities provides some capacity for SES to manage any shortages in other areas. However, this capacity to 'share the load' will be limited by the response time required of a particular incident type. For example, assisting other agencies will usually have an amount of lead time and therefore could call on personnel from a broader region, whereas response to vehicle accidents would have to be as rapid as possible.

The types of incidents each municipality was most exposed to also varied significantly. However, a thorough analysis of this aspect was not conducted and is recommended for future work.

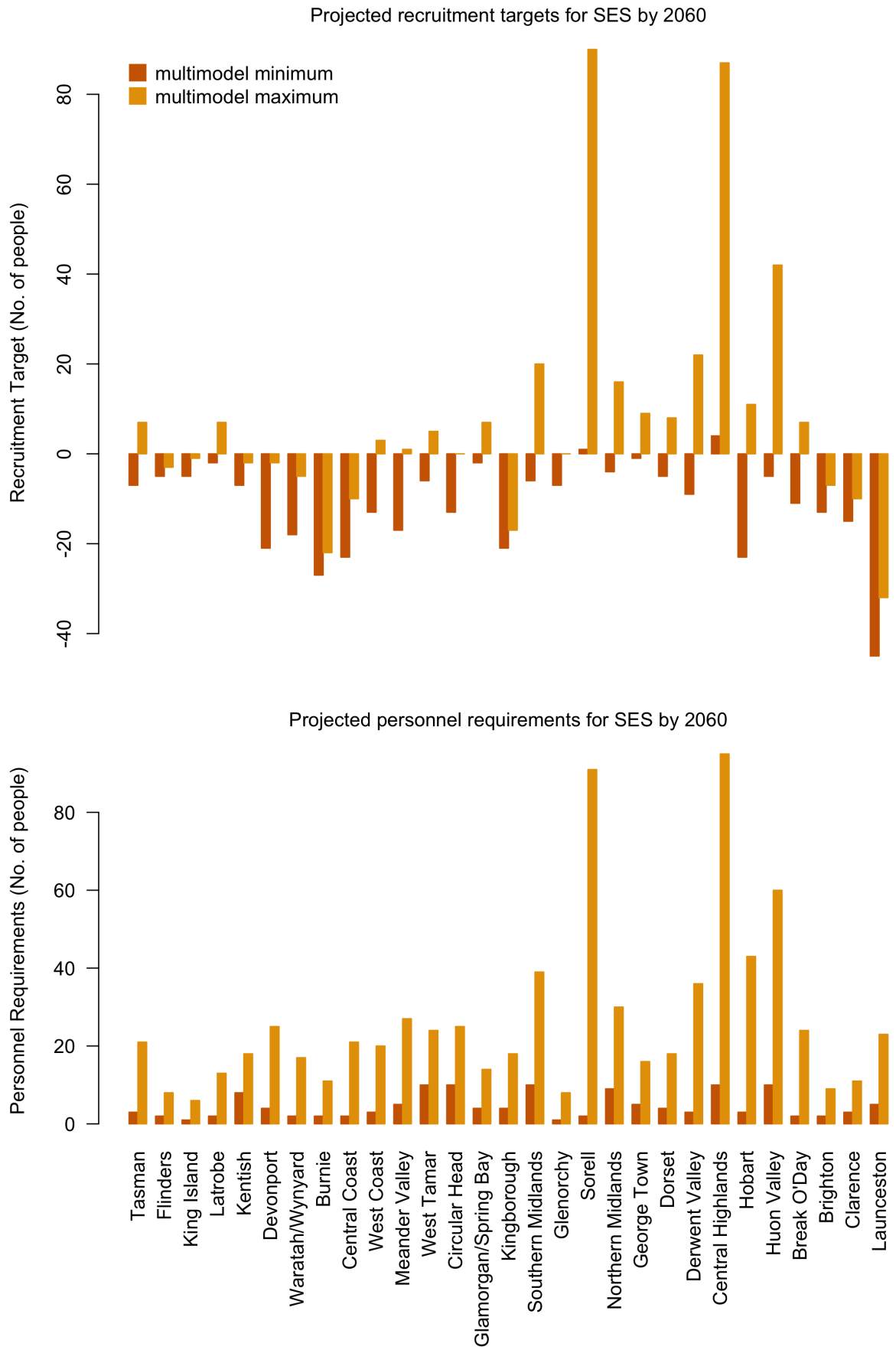

Figure 5.3: Projected personnel requirements (bottom panel) and potential recruitment targets (top panel) by 2060 for SES in each municipality of Tasmania.

5.4.4 Tasmania Fire Service

The personnel requirements for TFS were by far the largest across the EVN, representing about 80% of the total number of volunteers. Across the state in a *high incident year* TFS currently require about 4,000 people. This increases by about 60% to 6,400 people by 2060, and by 2100 increases by about 200% to 13,100 people. The number of personnel available by 2060 is projected to increase by about 10% from 4,000 people currently, to about 4,400 people (but could be as low as 3,500 people in a low growth scenario). This leaves a potential recruitment target of about 2,000 additional new recruits by 2060.

TFS volunteer personnel requirements were assumed to be exclusively related to climate change; no demographic elements were considered to increase the danger of incidents. It would be a relatively simple task to incorporate non-vegetation related workload if the data exists.

There is significant inter-annual variability in the TFS personnel requirements, with a 3-fold difference between requirements in a *low incident year* versus a *high incident year*. Despite this, the increased rate of climate hazard is so large that by 2040, a *typical year* will be equivalent to a *high incident year* in 2000. By 2080 a *low incident year* is projected to be equivalent to a *high incident year* in 2000. This suggests there will be very limited opportunities for psychological recovery periods in the future. It must be noted this is not only driven by changes in bushfire danger.

It is recognised that TFS volunteers are deployed to assist with other natural disasters as well, and it is the combination of all these factors that has resulted in such large increases both now and in the near future (i.e. by 2040).

The number of personnel available varied across the state. Some municipalities experience increases (such as Kingborough, Latrobe and Huon Valley), whilst others reflect the decline in the younger cohorts (such as Dorset, Glamorgan/Spring Bay and Northern Midlands). As both the total climate hazard danger, and the number of personnel available varied across the state, so did the projected recruitment targets. Some municipalities are projected to have a surplus of available personnel (such as the Kingborough, Latrobe and Southern Midlands), whilst others are projected to experience personnel shortages (such as Launceston, Clarence and Brighton). These results are further complicated by the range of possible futures as projected by the different model-scenario combinations. To reflect the *best case* and *worst case* possible futures both the multi-model minimum (the *low incident year and low climate danger*) and the multi-model maximum (the *high incident year and high climate danger*) are presented in Figure 5.4. TFS has three main types of municipalities: those projected to be endowed with surplus available volunteers regardless of the possible future; those projected likely to suffer deepening shortages of available volunteers regardless of the possible future; and those where the likelihood of surplus or shortages of available volunteers depends on the possible future we experience.

The surplus of available personnel in some municipalities provides some capacity for TFS to manage any shortages in other areas. However, this capacity to 'share the load' will be limited by the response time required of a particular incident type and the volume of anticipated personnel requirements are quite substantial. Significant efforts to boost volunteer numbers is required in many regions. The areas of greatest need appear to be Launceston, Clarence and Brighton. Fortunately, these are highly populated areas where targeted recruitment has potential to greatly improve participation rates. However, exact situations in other municipalities are quite variable and require specific attention by their leadership teams, outside the scope of this study.

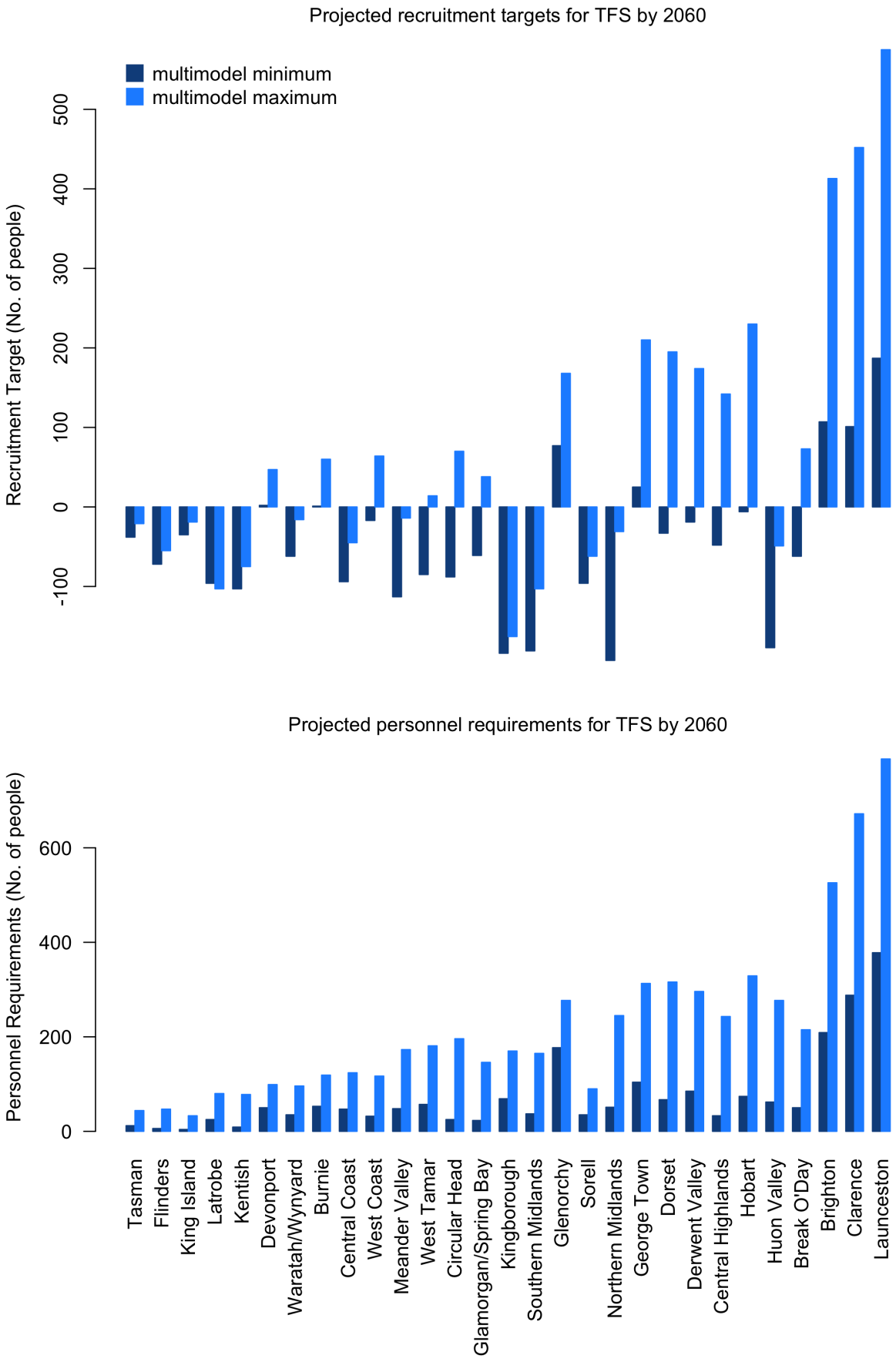

Figure 5.4: Projected personnel requirements (bottom panel) and potential recruitment targets (top panel) by 2060 for TFS in each municipality of Tasmania.

5.5 Additional findings

5.5.1 Incident data collection processes

It is highly recommended that effort is prioritised into the development of standardised, simple, rapid and wherever possible automated data collection processes. This will improve the volume of incident data collected by making it easier for ground personnel to complete. It will also improve the quality of the data collected through standardising the terminology/nomenclature and categorisation tools of each incident and by reducing the opportunity for human error (which, given data are often logged/collected following an incident when personnel are fatigued, is more likely).

Automation of temporal and spatial data such that personnel do not have to know exactly where they are (or remember where they were) would greatly improve accuracy and precision of this kind of data, and if automated would also allow for real time tracking of deployments, improving operational decision making, especially if a single, integrated system was rolled out across all relevant agencies (AT, SES, TFS, TASPOL, Red Cross, Surf Life Saving). Implementing such systems would be relatively straight forward, with operational, off-the-shelf systems available and in use in Tasmania today.

For example, Stornoway use a system to manage the deployments, record keeping, tracking and review of traffic related incidents on Tasmanian roads through apps available on standard smartphones (and other associated inexpensive geo-spatial technology). The system used by Stornoway automatically and easily records the location at call time, location on arrival, allows for recording of Workplace Health and Safety requirements, incident categorisation and many other elements.

Such a system could be developed for generalised use across the entire emergency response network, or developed for specific purposes depending on what is appropriate. Both would be sensible, with generalised information that is useful to be shared across the network collected with a single generalised system (e.g. incident type, severity location, time, duration, individual personnel details, responding units, affiliations, personnel availability), with other systems used for more specific or sensitive data types.

The advantages of implementing such a system to understanding, improving and integrating cross-agency response protocols could be substantial. For example, analysing how units move throughout a landscape towards and during an event could be useful for assessing the most appropriate allocation of tasks at all levels (e.g. professional vs volunteer staff, inter-agency responsibilities).

5.5.2 Integration of cross-agency leadership teams per region

The emergency management network in Tasmanian responds to a range of different types of incidents. Each region has its own profile of typical hazard / incident types that are the responsibility of different agencies. There are already strong working relationships between agencies and these relationships could be further strengthened by encouraging the use of integrated management, training and recruitment teams. This will help fill the gaps in the entire network more efficiently, as the different agencies will be more aware of which personnel or training requirements are most in need of development per region. It will also help identify the kinds of incidents that can be managed by out-of-area personnel, and which are best managed by local teams.

Chapter 6

Milestone 6: A projection of the psychological impact on volunteers (positive or negative) given the projected change in climate hazards

6.1 Scope

There are many psychological pressures faced by volunteers. Of these, the only pressure that is reasonable to investigate with demographic and climate projections is *burnout*. *Burnout* is generally agreed to be a state of chronic stress that can lead to symptoms such as physical or emotional exhaustion, a feeling of ineffectiveness or a lack of accomplishment, cynicism or detachment. Those experiencing *burnout* may no longer be able to function effectively on a personal or professional level. It is an insidious state of being that slowly develops, rather than occurring in a sudden dramatic fashion and is therefore difficult to identify and address.

The original intention of this milestone was to link personnel retention rates to emergency service events / workload. Unfortunately, historical personnel records were either not available, not provided, or captured insufficient details to directly assess which kinds of emergency events may trigger personnel to leave an organisation. No relationship between termination dates (where available) and incident dates was found. Another limiting factor of the data provided is the lack of records associating individual personnel with each incident. Identifying if the workload shouldered by any one individual may have contributed to them leaving was not possible to assess.

Furthermore, personal communications with Human Resources staff within the emergency services suggested that the circumstances leading to a volunteer deciding to leave are unlikely to be broad and generally applicable. It is more likely these reasons are a highly personal and unique combination of factors. As such, it seems likely that in order to identify factors that management could react to, access to sensitive, confidential information handled by Human Resources would be required. This was outside the scope of this project, and is the kind of task more appropriate for internal research rather than external organisations.

Fortunately, whilst investigating all the results from Chapter 5, a metric was identified that may make it possible to identify those areas at highest danger of personnel suffering *burnout*. This metric was the recruitment target for current the time period, 2000–2020.

6.2 Methods

6.2.1 Municipalities that may be under-resourced

If personnel requirements (a measure of incident workload) exceed the current personnel available, it would seem likely that volunteers in those areas may be experiencing symptoms of *burnout*. These municipalities are identified for present conditions. Determining the potential level of personnel *burnout* into the future is completely reliant on future personnel management strategies (i.e. if tracking of personnel workloads is improved) and future recruitment levels. Therefore, recruitment targets can imply where effort will be best applied, but it cannot predict the outcomes into the future.

Current personnel requirements were calculated by estimating the number of incidents currently responded to per year in each municipality. These were then totalled across the state. This total estimate of workload was then divided by the total number of volunteers (by agency) to estimate how much workload was approximately shouldered by each volunteer (this of course ignores the fact that the workload is not equally distributed). The workload in each municipality was then converted into a number of personnel required.

The number of personnel required based on workload was then compared to the number of volunteers available, this identifies which municipalities may require additional resources.

Limitations

It was only possible to analyse the data provided. No data were provided for professional staff, so if they happen to service some areas, this has not been captured in this analysis (an obvious example of this may be with regards to the Break O'Day municipality for AT).

Similarly, no information on incidents not involving non-vegetation fires was provided by TFS. This means total workload may not have been incorporated into this analysis, and this may have an impact on the workload estimates of regions such as Kingborough.

6.2.2 *Active* vs *inactive personnel*

SES was the only organisation to provide some records of personnel who were no longer active. Identifying inactive personnel is not straight forward, as those who decide to leave do not always alert the rest of their team. Similarly, *active* personnel are not always recorded as being present at incidents, or may be only active at SES events (for example recruitment drives) rather than at emergency incidents. Therefore, *active* personnel were defined for this study as those who have attended an incident in the last 2 years, whereas *inactive* personnel, considered to have left the organisation, were defined as those who have not attended an incident in the last 2 years—but had attended at least one incident prior to this time.

Using the available records, individuals were linked to which incidents they attended in an effort to allocate annual workload to each individual. This method is not considered robust, lacking in accuracy and precision, acknowledging limitations in the original data collected. That said, some indicative answers were found. These are reported, although a much more thorough investigation is recommended.

6.3 Results

The vast majority of any future personnel requirements are accounted for within the current time period. If this offset is addressed now, the future requirements will be significantly diminished and much more manageable.

6.3.1 Ambulance Tasmania

under-resourced regions at present

Based on current workloads and active volunteers across the state, six municipalities were identified as potentially being under-resourced. These were Kingborough, King Island, Southern Midlands, West Coast, Glamorgan/Spring Bay and Break O'Day. To manage a *typical year* each may need an additional 10-20 personnel, although Glamorgan/Spring Bay may need as many as 30 and Break O'Day may need as many as 100 extra personnel. Note that personnel requirements for a *high incident year* are very similar in these regions to a *typical year*.

Break O'Day municipality was identified to have a very large proportion of the AT volunteer incident load, with about 20-30% (depending on the year) of the overall incident hours statewide. This significant proportion is apparently serviced primarily by 30 of the ~500 personnel statewide. This difference is substantial, and therefore it is likely this region may be serviced by professional staff. If this is the case, it would explain the suggested *recruitment target* of 100 additional volunteers (or a 450% increase on current levels). However, the AT database allowed the separation of volunteer and professional responses, so all these incidents were responded to by volunteers. It is recommended AT investigate the current workload arrangements in Break O'Day and determine if this result is an artefact of the data provided and the subsequent analysis, or a real pressure on resources that needs addressing.

6.3.2 Tasmania State Emergency Service

under-resourced regions at present

Based on current workloads and active volunteers across the state, five municipalities were identified as potentially being under-resourced. These were Southern Midlands, Derwent Valley, Huon Valley, Central Highlands and Sorell. To adequately manage a *typical year*, only the Central Highlands seems under-resourced, requiring ~10 additional personnel (probably due to the number of traffic incidents). However, to adequately manage a *high incident year*, Southern Midlands, Derwent Valley and Huon Valley may need an additional 10-20 personnel, where Central Highlands and Sorell may need 50-60 additional personnel. These additional requirements are likely due to climate related hazards.

Sorell has a large additional personnel demand due to the absence of a unit in the Sorell municipality. As previously mentioned, it is highly recommended the SES investigate the feasibility of establishing (or relocating) local stations in areas close to the major population centres. Integrating or collaborating with AT, TFS or even the local TASPOL should be investigated to try and maximise the use of existing infrastructure where possible, and further encourage the integration and development of cross agency teams.

This analysis suggests that the Central Highlands is an area with high demand on the SES, and this demand will grow significantly over time. The region is susceptible to traffic accidents, bushfire and flood, and therefore is likely to suffer emergencies regularly in the future. The number of volunteers currently working in this area is not sustainable in the longer term. They will need more local support, as well as any support that can be provided from the surrounding municipalities. It is recommended the SES review the current distribution of personnel/units/stations and evaluate if there is scope to bolster the membership in existing locations, or if there is a more optimum distribution of the SES personnel into the future.

Active vs *inactive* personnel

A comparison of the incident workload profiles of *active* and *inactive* volunteer personnel was undertaken. Keeping in mind this analysis was potentially flawed, the results are as such: *Active* personnel typically have much higher annual workload (about 10-fold those who no longer participate) with lower typical incident durations. Only, *inactive* personnel had years where they never

attended an incident, whilst also seemed to have attended longer incidents, with typical incident durations about double those of *active* personnel, especially at the higher end of the range (i.e. incidents greater than 3 hrs).

These results, if they can be believed, suggest that people who decide to leave the SES possibly do so for a number of reasons:

- They happen to be exposed to a longer, more demanding incident without the sufficient experience dealing with smaller incidents. It may be they have not developed the mental tools required to deal with the level of stress, tools which may be developed during regular participation (and mentoring) at smaller events. This negative experience discourages them from committing to the SES longer term.
- Some personnel happen to only attend the longer incidents. This may result in a perception of too large a personal commitment of time and energy to be sustained. This negative experience discourages them from committing to the SES longer term.
- Volunteers are not encouraged to participate enough, and therefore, regardless of being enthusiastic and capable, they do not feel their contribution is valued. This negative experience discourages them from committing to the SES longer term.
- Long periods of inactivity may diminish personal resilience, thus once requested to attend an incident, personnel may be less prepared than they admit (to themselves and others) and are more susceptible to a negative experience at an incident. This may discourage them from continuing their commitment to the SES longer term.

6.3.3 Tasmania Fire Service

under-resourced regions at present

Based on current workloads and active volunteers across the state, nine municipalities were identified as potentially being under-resourced. These were Burnie, Georgetown, Derwent Valley, Central Highlands, Glenorchy, Hobart, Clarence, Brighton and Launceston. To adequately manage a *typical year*, only four municipalities appear under-resourced: Glenorchy, Clarence, Brighton and Launceston, requiring about 50, 100, 150 and 200 additional personnel respectively. However, to adequately manage a *high incident year*, the requirements of these four municipalities approximately double, with the other five municipalities possibly requiring 10-40 additional personnel.

These additional personnel requirements are in some cases substantial. It is possible some (or most) of these regions are managed by professional staff and as such, the apparent requirement for more volunteers in these regions may be an artefact of the data provided rather than a real potential need. Such possibilities must be accounted for when interpreting these results. It is recommended TFS consider/investigate the operational arrangements in these regions and assess if the results are an artefact of the data provided, or a genuine identified requirement for additional personnel.

Chapter 7

Conclusion

The Tasmanian emergency volunteer network is a critical component of the states emergency response system. It is currently meeting the demands placed on it, although there are indications it is regularly brought to the limits of its capacity, especially in some specific regions. The demands on the network are expected to increase over the coming decades as Tasmania's population profile changes and as the natural environment becomes more hazardous due to climate change.

The outputs delivered by this project, contained within this report, provide the managers of emergency volunteers in Tasmania with evidence that can support their operational and strategic objectives both now and into the future.

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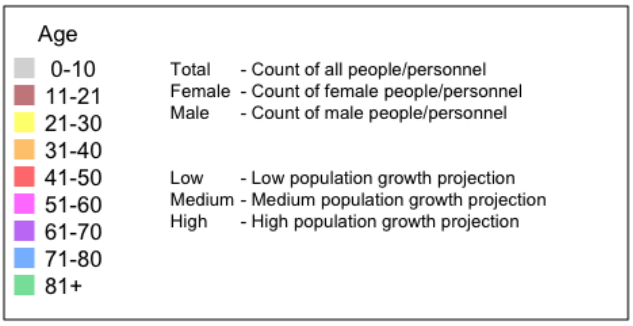
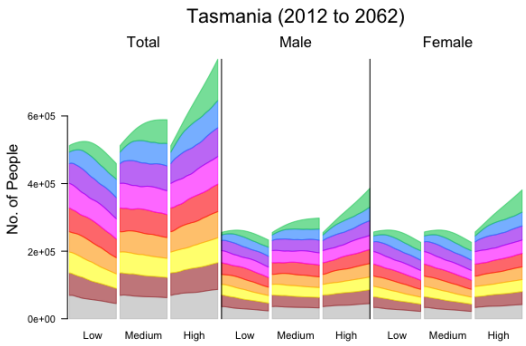
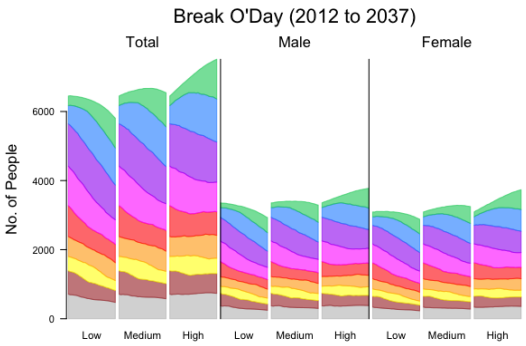
Appendix A

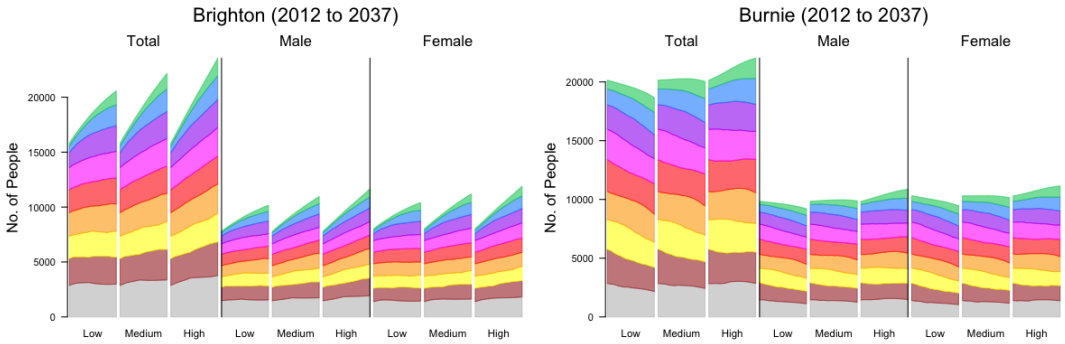
Figures presenting the demographic breakdown of the Emergency Volunteer Network

Total population demographic changes per municipality

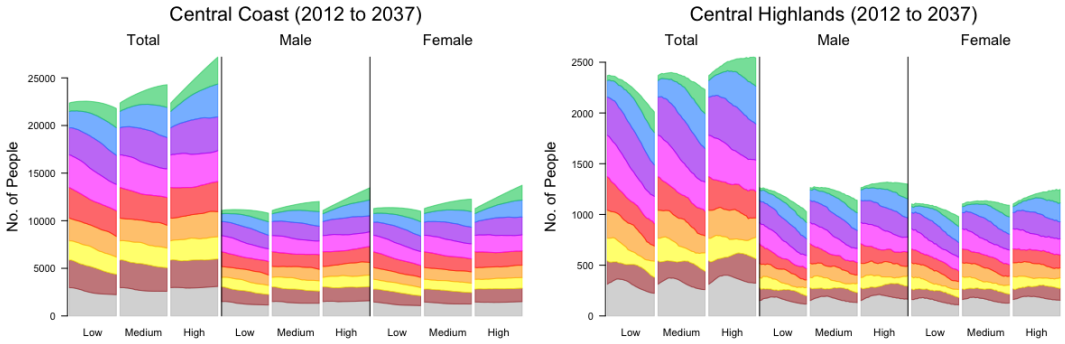




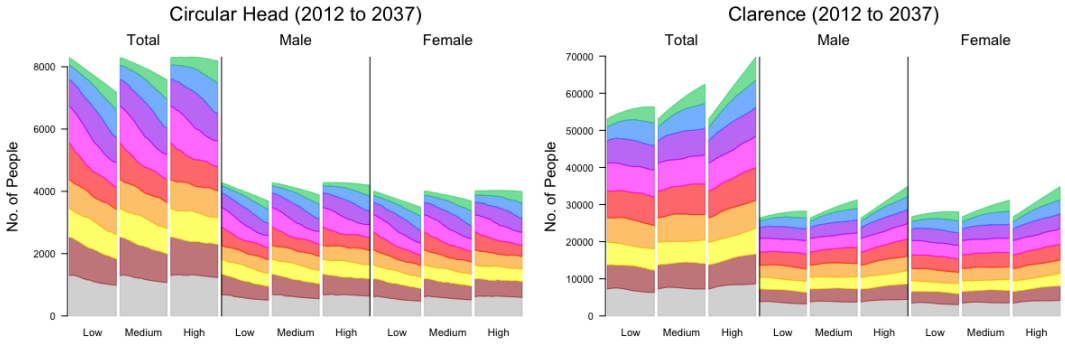



Brighton (2012 to 2037)
Total
Male
Female
No. of People
0
5000
10000
15000
20000
Low
Medium
High

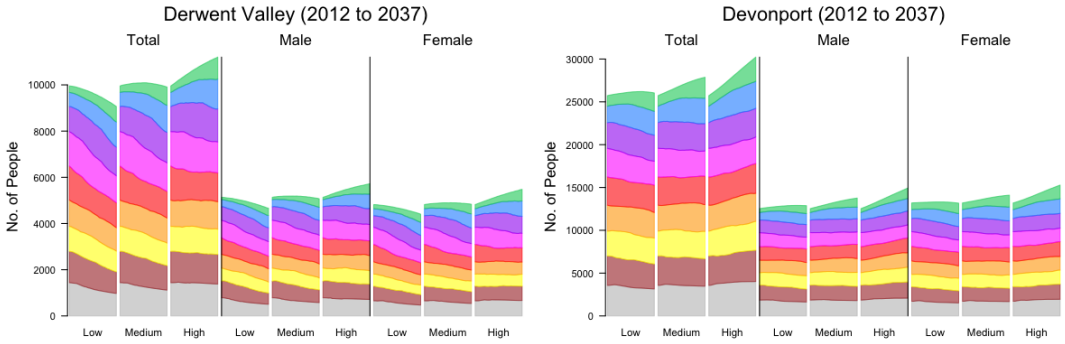
Burnie (2012 to 2037)
Total
Male
Female
No. of People
0
5000
10000
15000
20000
Low
Medium
High


Central Coast (2012 to 2037)
Total
Male
Female
No. of People
0
5000
10000
15000
20000
25000
Low
Medium
High

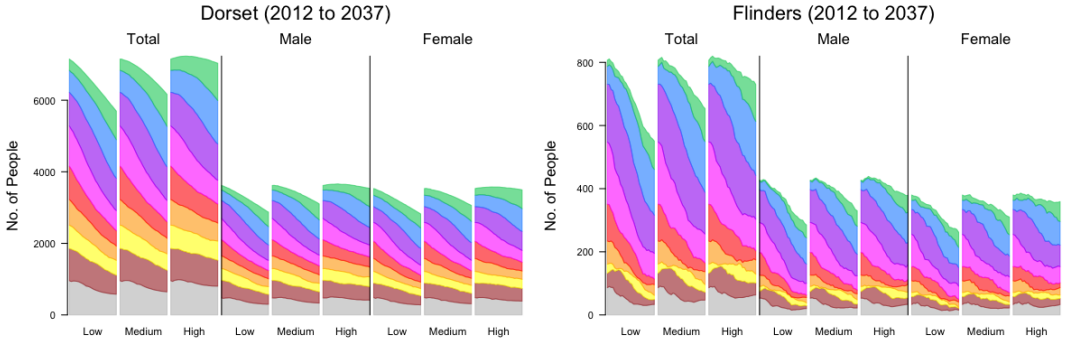
Central Highlands (2012 to 2037)
Total
Male
Female
No. of People
0
500
1000
1500
2000
2500
Low
Medium
High


Circular Head (2012 to 2037)
Total
Male
Female
No. of People
0
2000
4000
6000
8000
Low
Medium
High

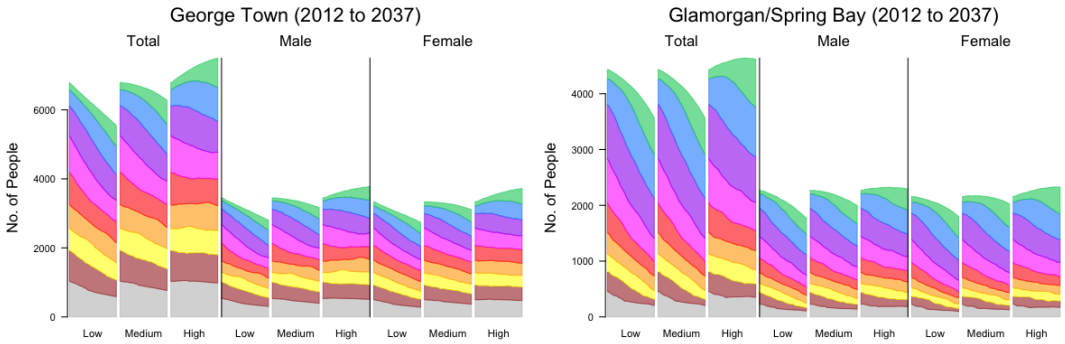
Clarence (2012 to 2037)
Total
Male
Female
No. of People
0
10000
20000
30000
40000
50000
60000
70000
Low
Medium
High


Derwent Valley (2012 to 2037)
Total
Male
Female
No. of People
0
2000
4000
6000
8000
10000
Low
Medium
High

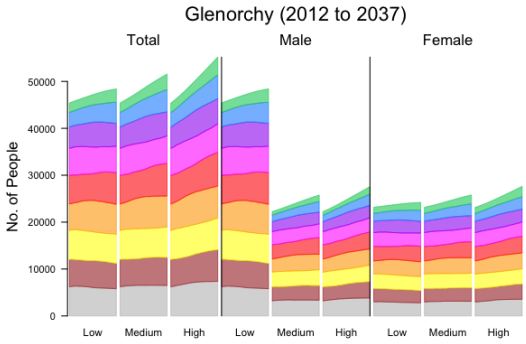
Devonport (2012 to 2037)
Total
Male
Female
No. of People
0
5000
10000
15000
20000
25000
30000
Low
Medium
High

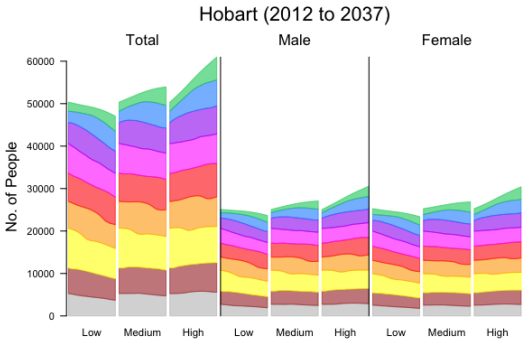

Dorset (2012 to 2037)
Total
Male
Female
No. of People
0
2000
4000
6000
Low
Medium
High

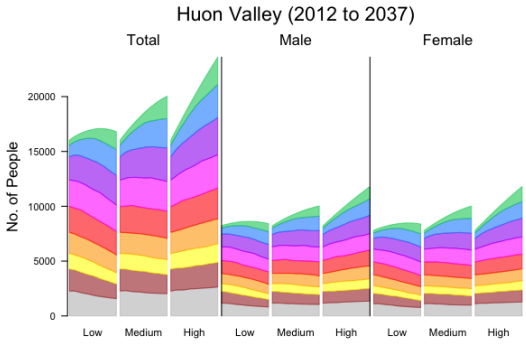
Flinders (2012 to 2037)
Total
Male
Female
No. of People
0
200
400
600
800
Low
Medium
High

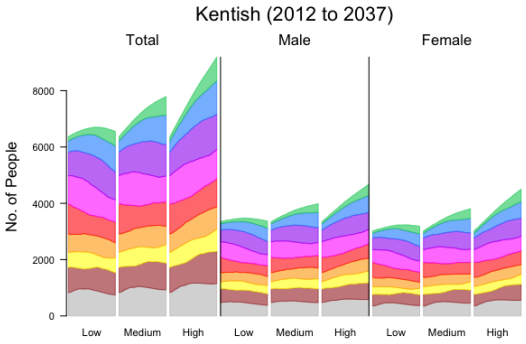

George Town (2012 to 2037)
Total
Male
Female
No. of People
0
2000
4000
6000
Low
Medium
High

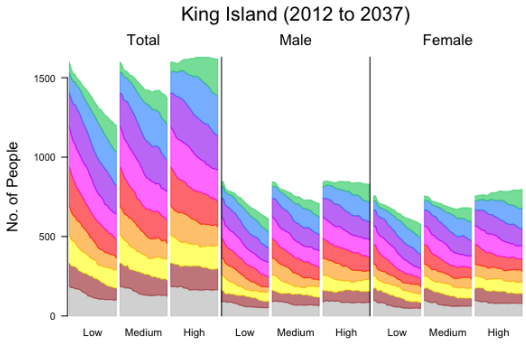
Glamorgan/Spring Bay (2012 to 2037)
Total
Male
Female
No. of People
0
1000
2000
3000
4000
Low
Medium
High

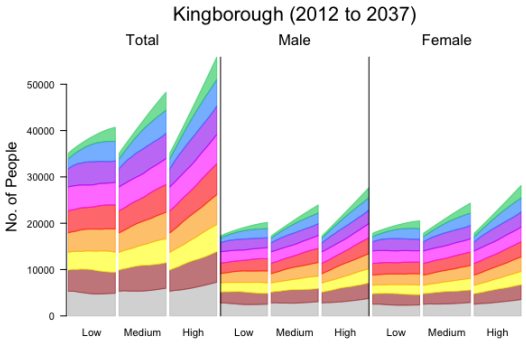

Glenorchy (2012 to 2037)
Total
Male
Female
No. of People
0
10000
20000
30000
40000
50000
Low
Medium
High

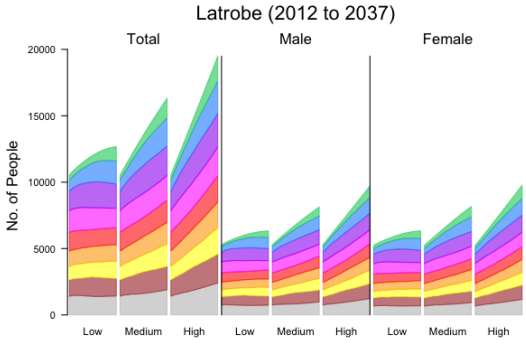

Hobart (2012 to 2037)
Total
Male
Female
No. of People
0
10000
20000
30000
40000
50000
60000
Low
Medium
High

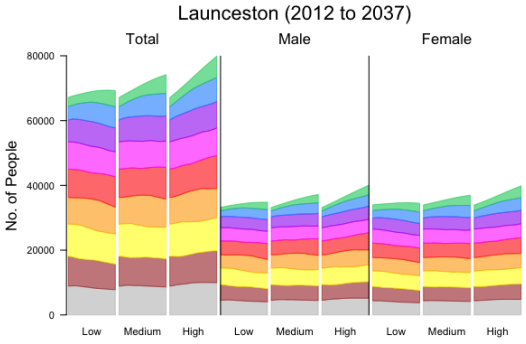

Huon Valley (2012 to 2037)
Total
Male
Female
No. of People
0
5000
10000
15000
20000
Low
Medium
High

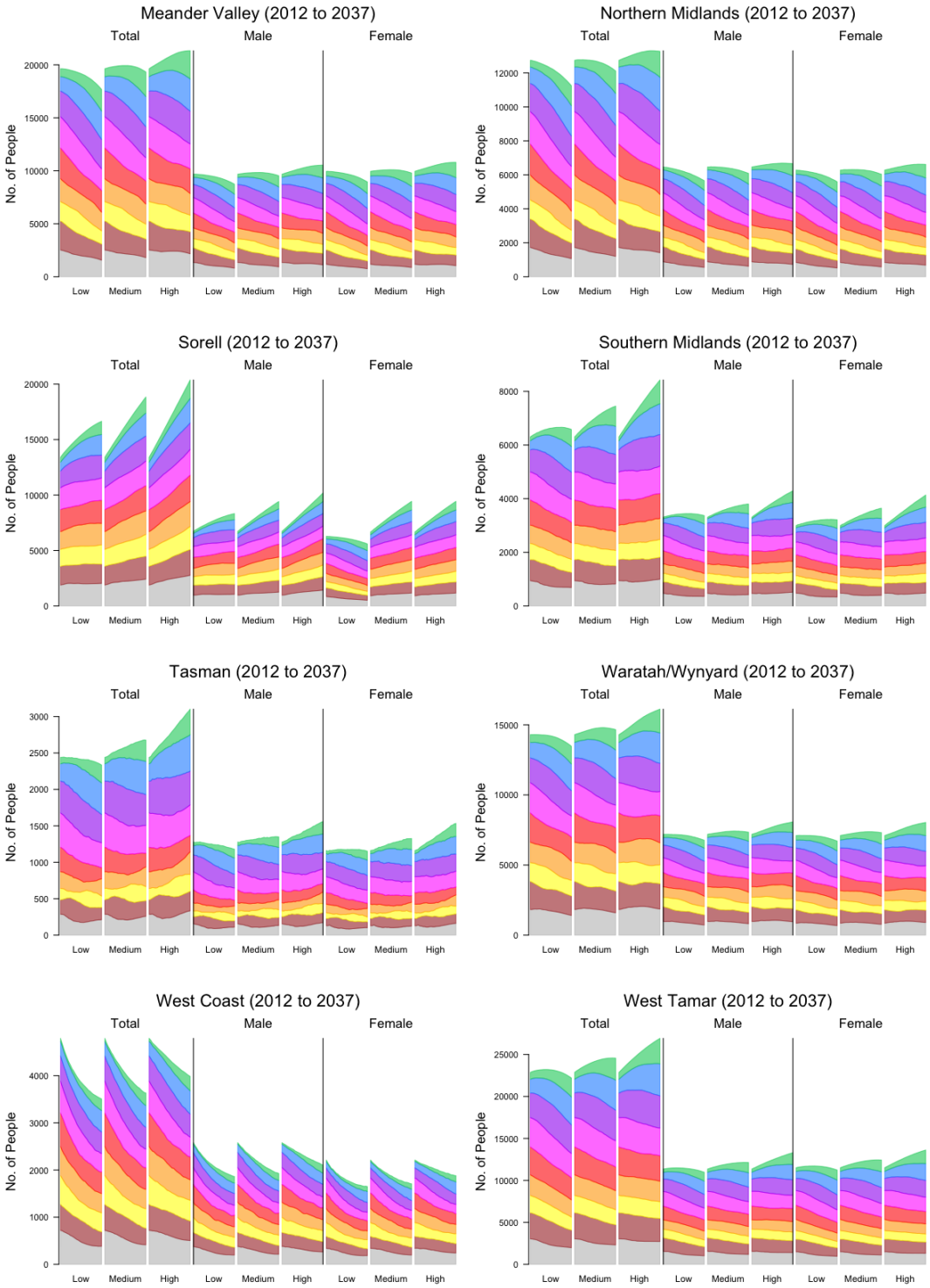

Kentish (2012 to 2037)
Total
Male
Female
No. of People
0
2000
4000
6000
8000
Low
Medium
High


King Island (2012 to 2037)
Total
Male
Female
No. of People
0
500
1000
1500
Low
Medium
High

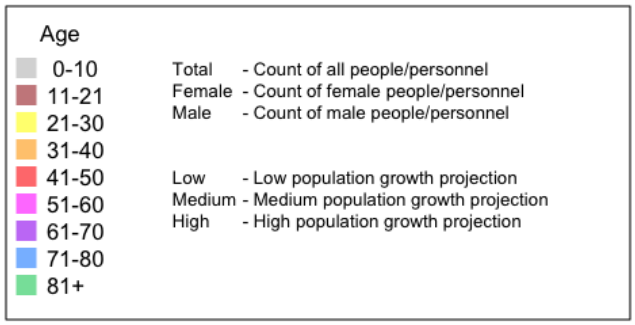

Kingborough (2012 to 2037)
Total
Male
Female
No. of People
0
10000
20000
30000
40000
50000
Low
Medium
High

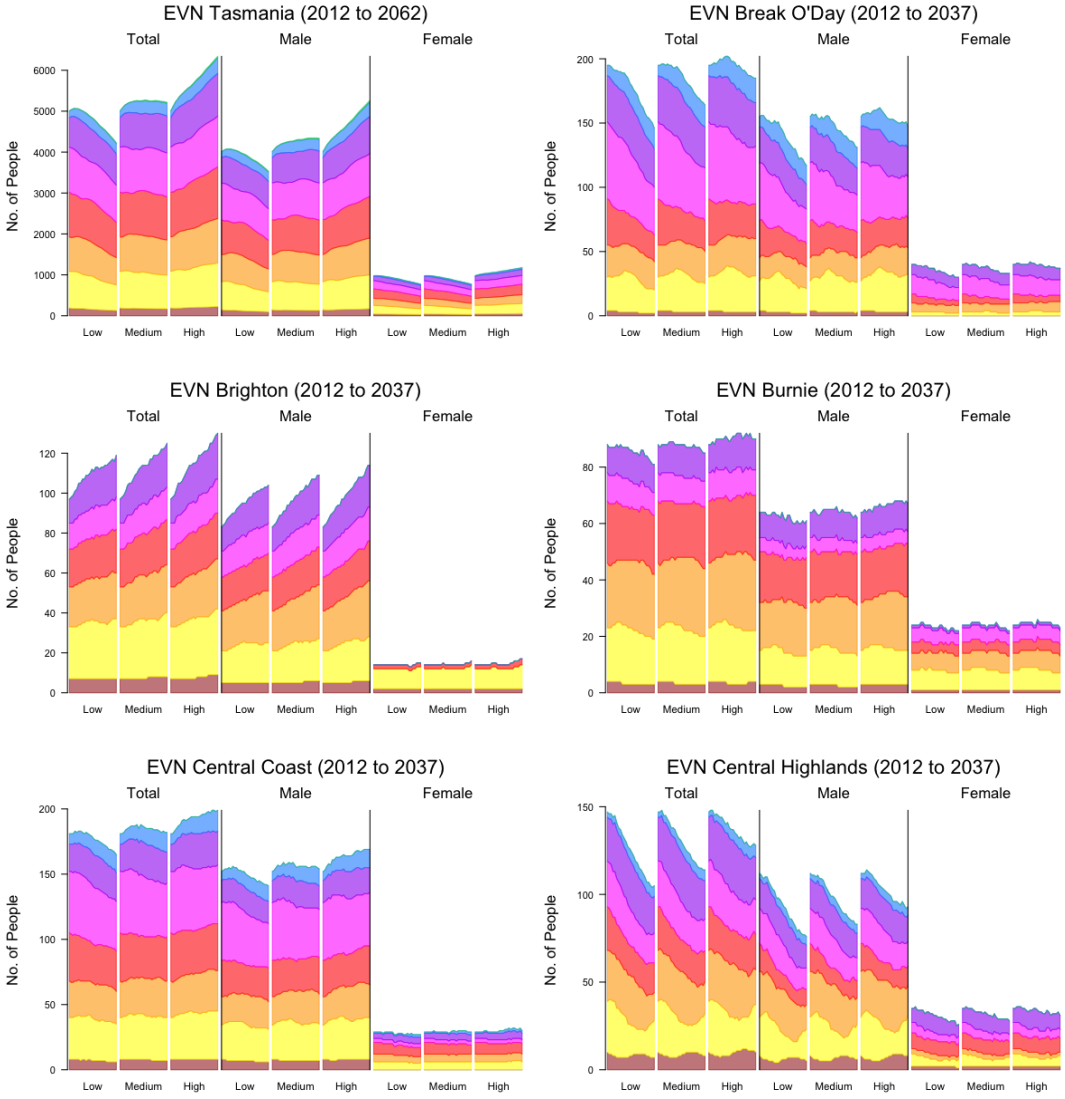

Latrobe (2012 to 2037)
Total
Male
Female
No. of People
0
5000
10000
15000
20000
Low
Medium
High

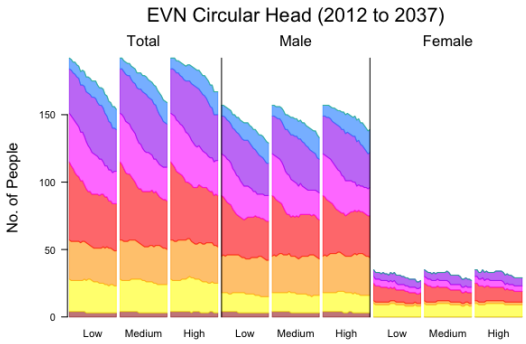

Launceston (2012 to 2037)
Total
Male
Female
No. of People
0
20000
40000
60000
80000
Low
Medium
High

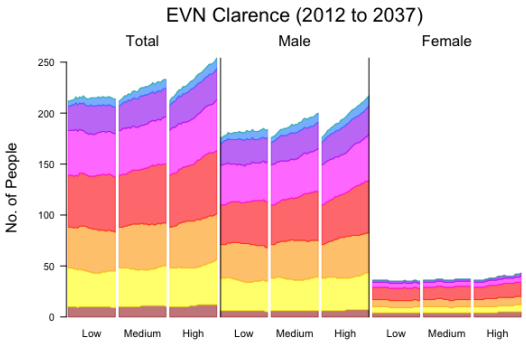

Meander Valley (2012 to 2037)
Northern Midlands (2012 to 2037)
Sorell (2012 to 2037)
Southern Midlands (2012 to 2037)
Tasman (2012 to 2037)
Waratah/Wynyard (2012 to 2037)
West Coast (2012 to 2037)
West Tamar (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

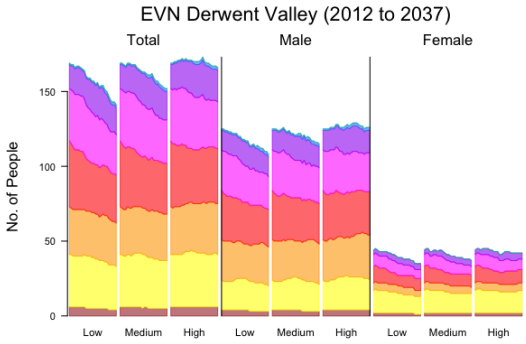
EVN demographic changes per municipality

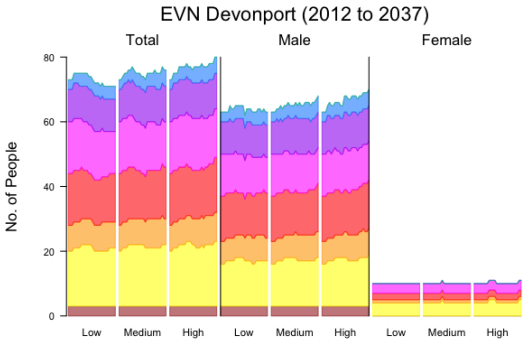


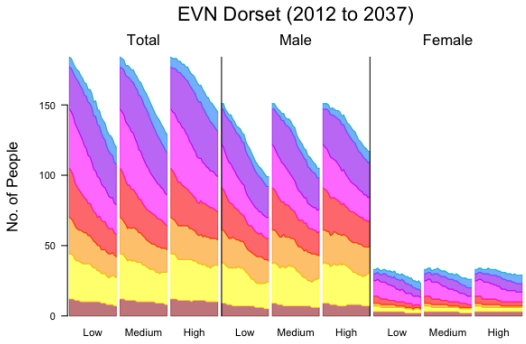


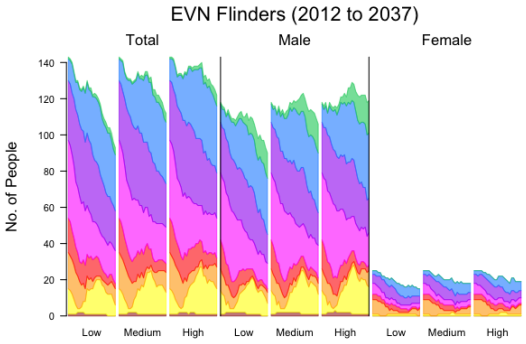

EVN Circular Head (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
Low
Medium
High

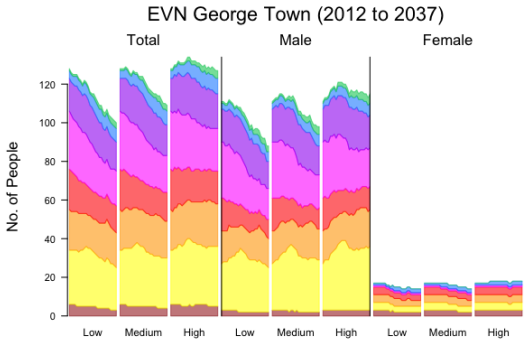

EVN Clarence (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
Low
Medium
High

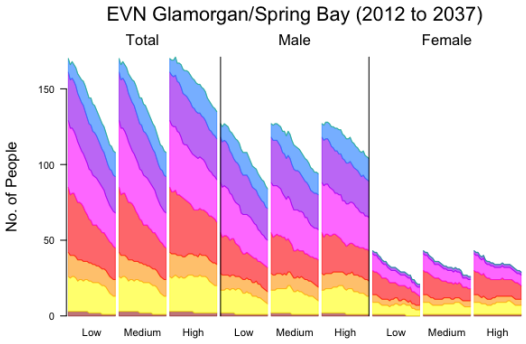

EVN Derwent Valley (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
Low
Medium
High

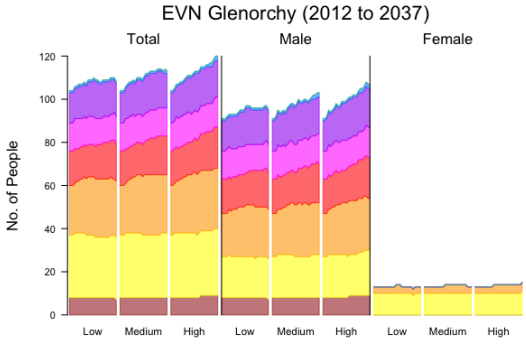

EVN Devonport (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
Low
Medium
High

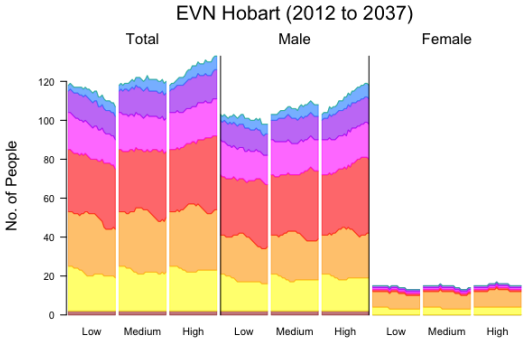

EVN Dorset (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
Low
Medium
High

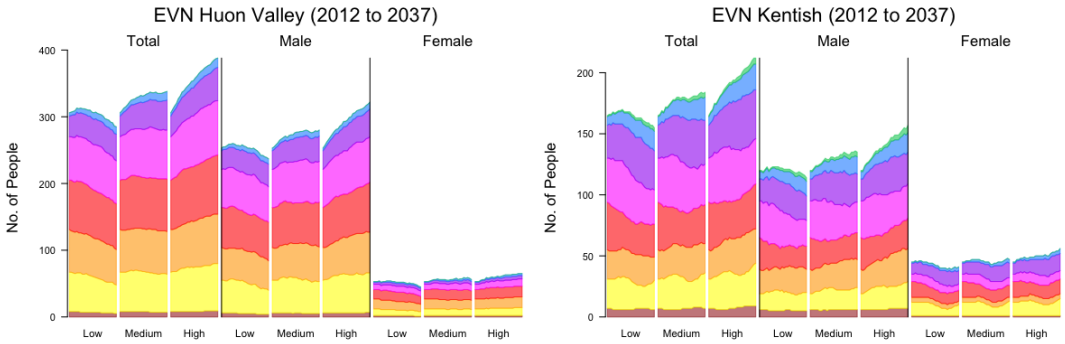

EVN Flinders (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
100
120
140
Low
Medium
High


EVN George Town (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
100
120
Low
Medium
High

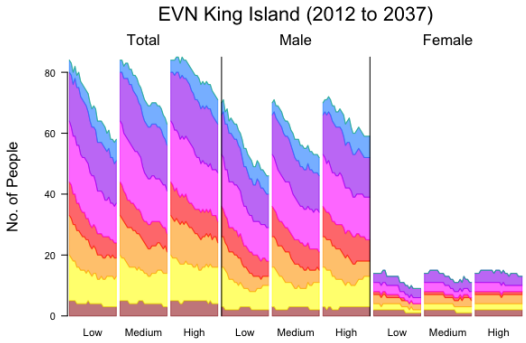

EVN Glamorgan/Spring Bay (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
Low
Medium
High

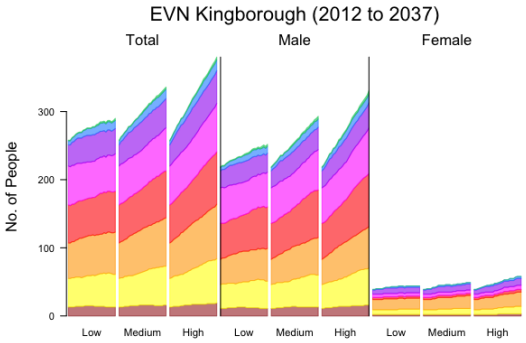

EVN Glenorchy (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
100
120
Low
Medium
High

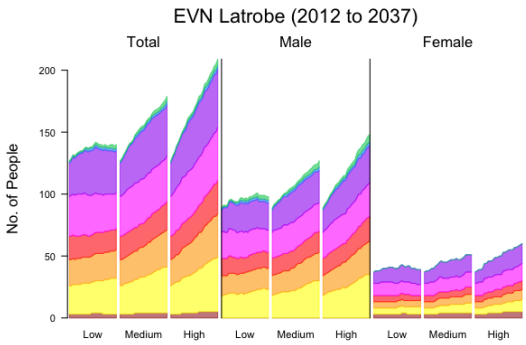

EVN Hobart (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
100
120
Low
Medium
High

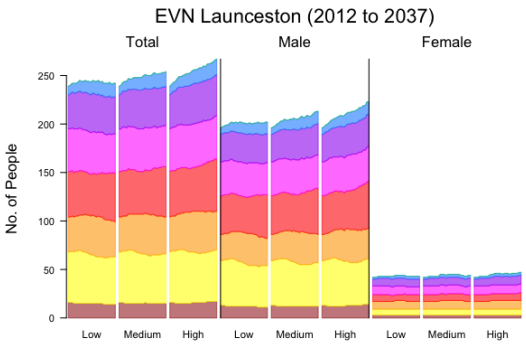

EVN Huon Valley (2012 to 2037)
Total
Male
Female
No. of People
0
100
200
300
400
Low
Medium
High

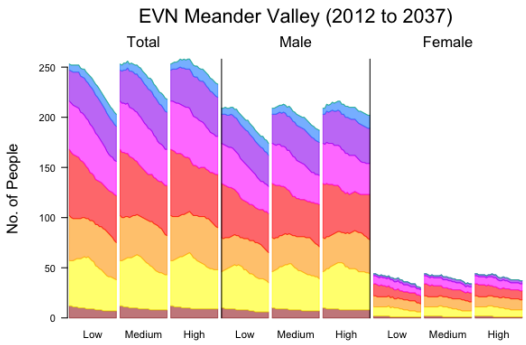
EVN Kentish (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
Low
Medium
High

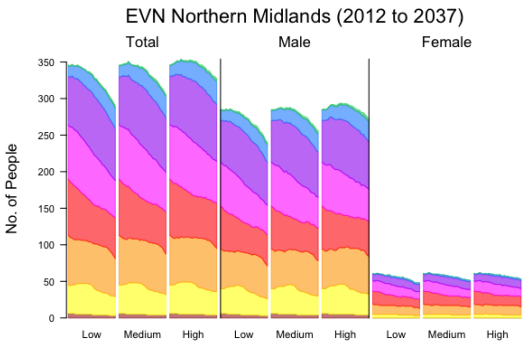

EVN King Island (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
Low
Medium
High

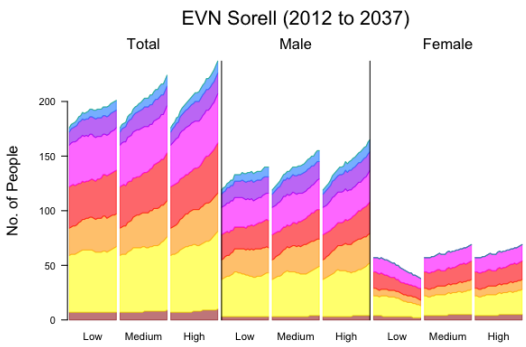

EVN Kingborough (2012 to 2037)
Total
Male
Female
No. of People
0
100
200
300
Low
Medium
High

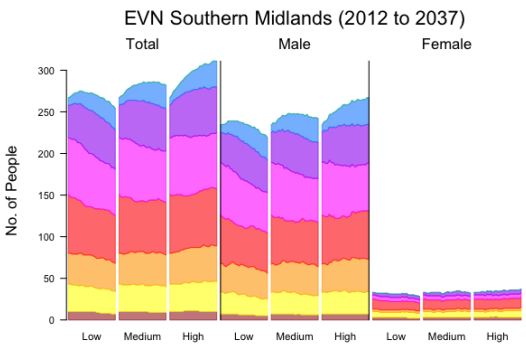

EVN Latrobe (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
Low
Medium
High

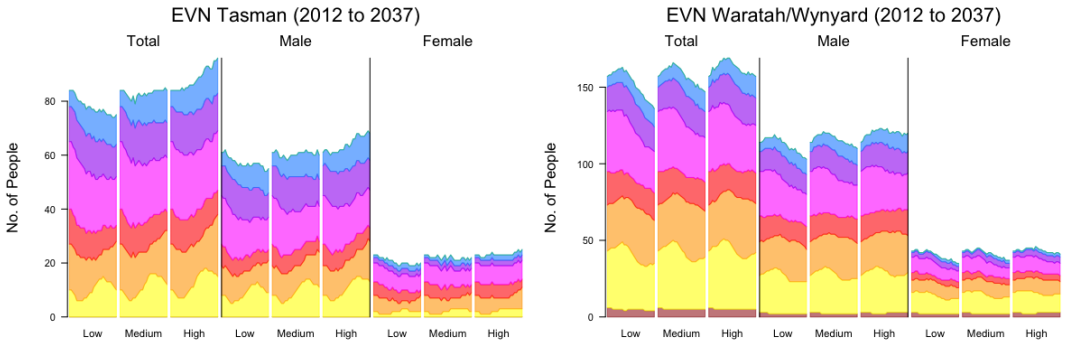

EVN Launceston (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
Low
Medium
High

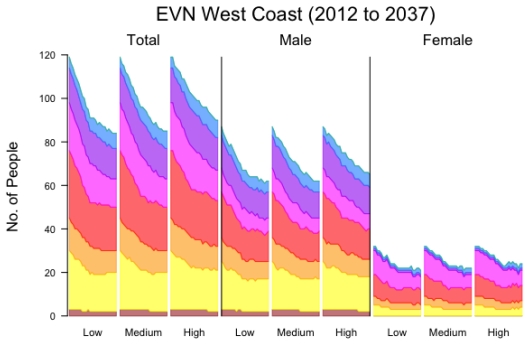

EVN Meander Valley (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
Low
Medium
High

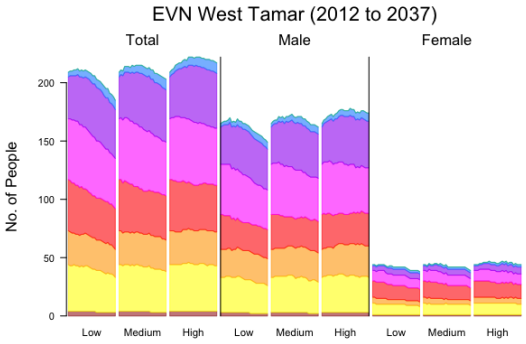

EVN Northern Midlands (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
300
350
Low
Medium
High


EVN Sorell (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
Low
Medium
High

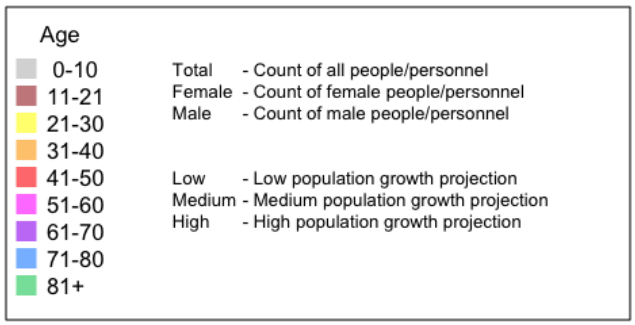

EVN Southern Midlands (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
300
Low
Medium
High

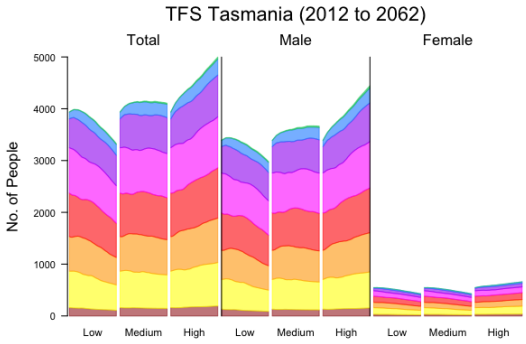


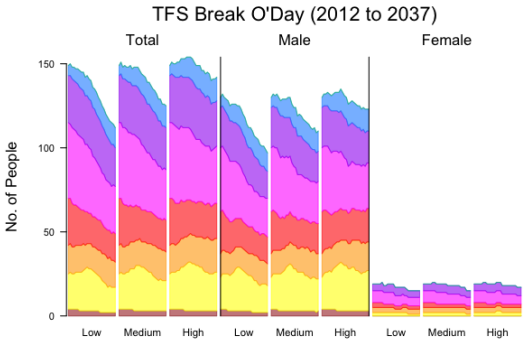


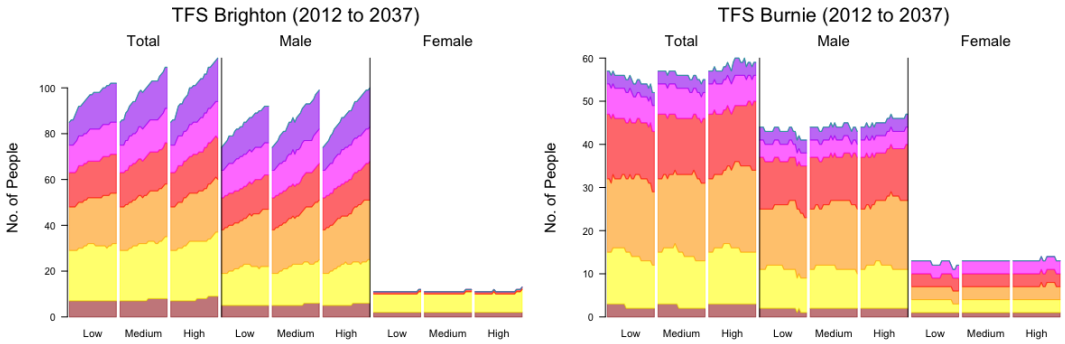


TFS demographic changes per municipality

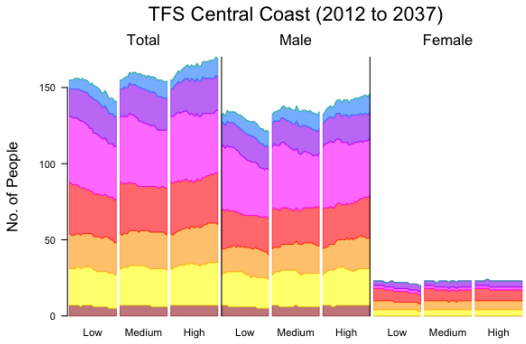


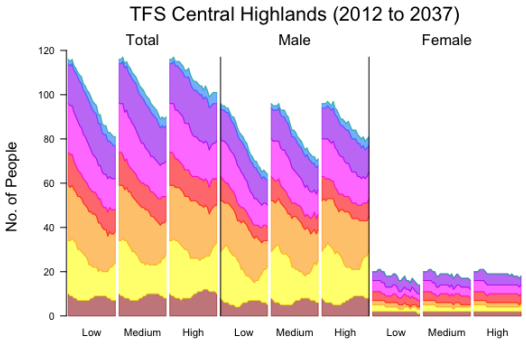


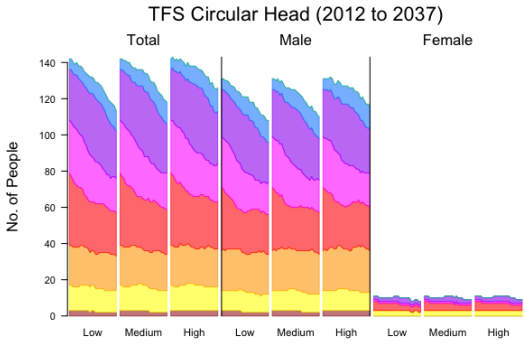


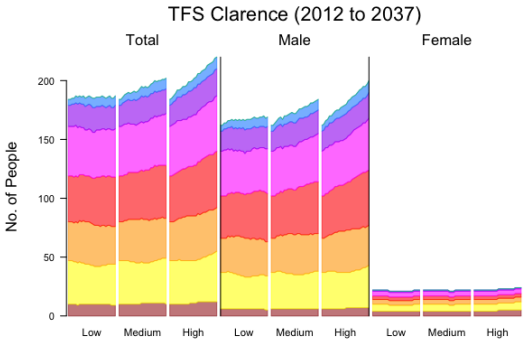

TFS Brighton (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

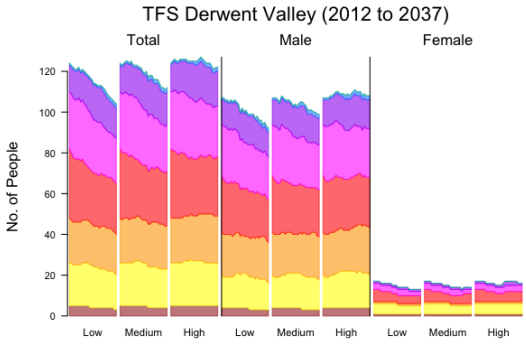
TFS Burnie (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

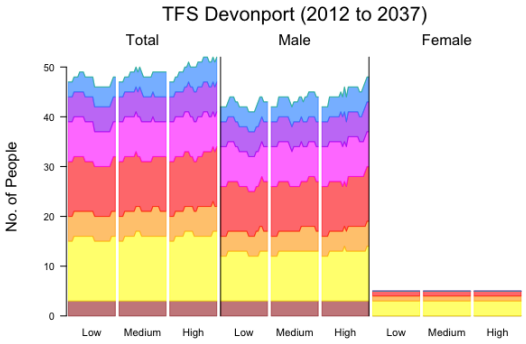

TFS Central Coast (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

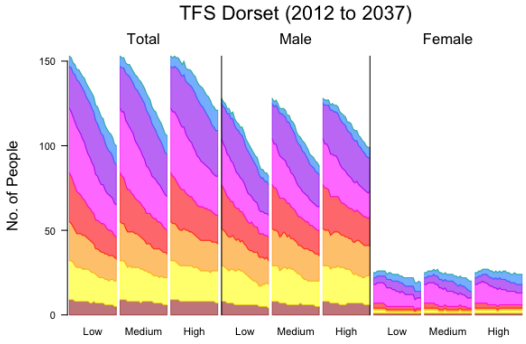

TFS Central Highlands (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

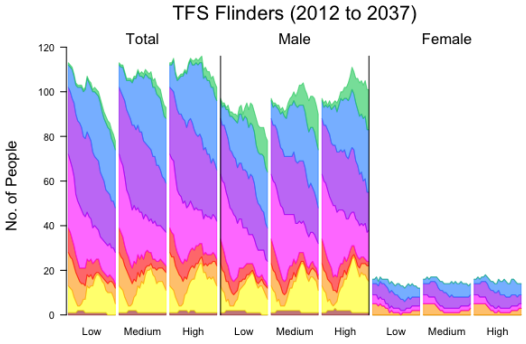

TFS Circular Head (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

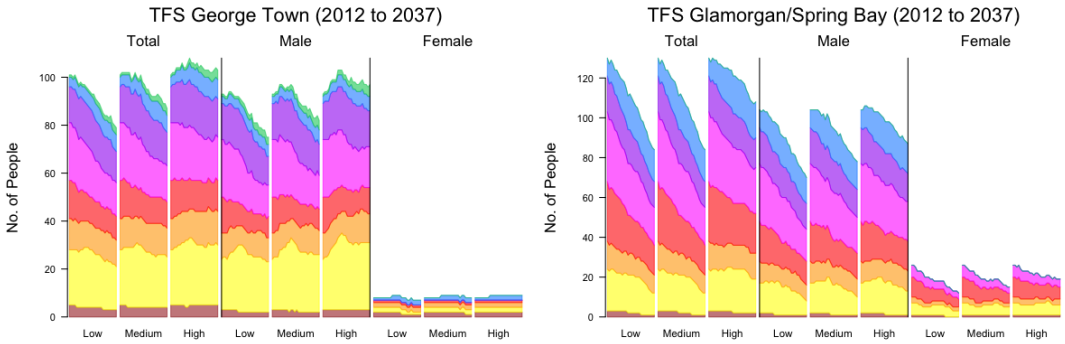

TFS Clarence (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


TFS Derwent Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

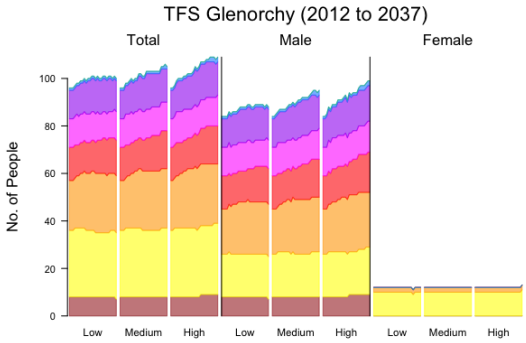

TFS Devonport (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

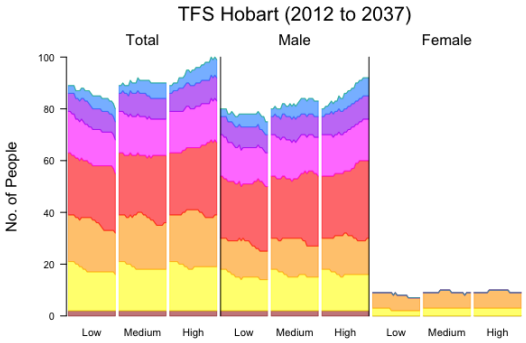

TFS Dorset (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

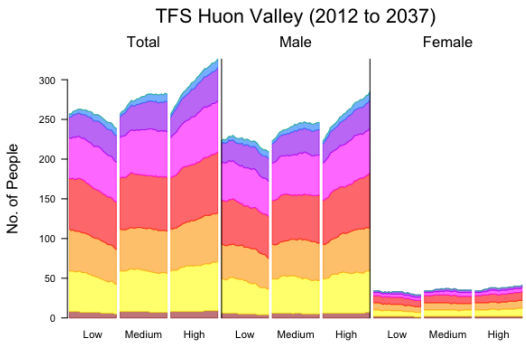

TFS Flinders (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

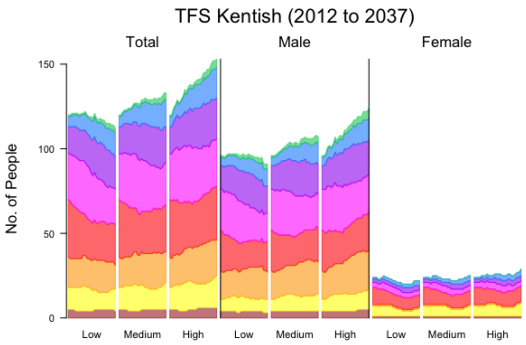

TFS George Town (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

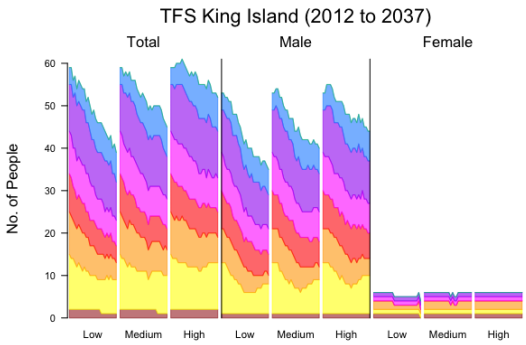
TFS Glamorgan/Spring Bay (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

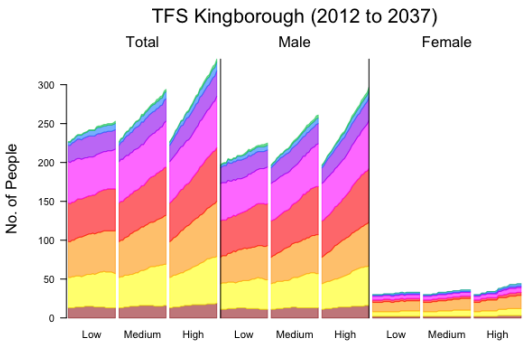

TFS Glenorchy (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

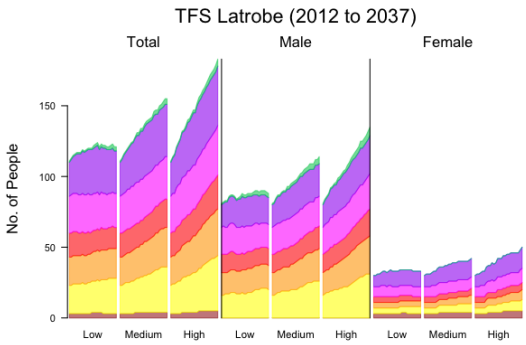

TFS Hobart (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

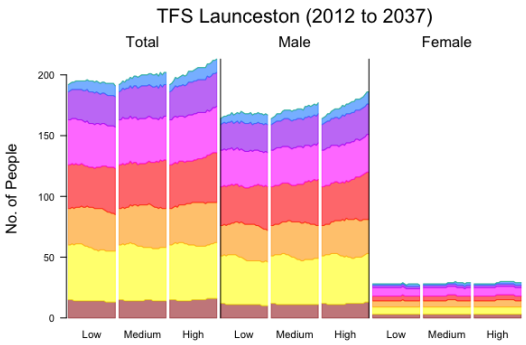

TFS Huon Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

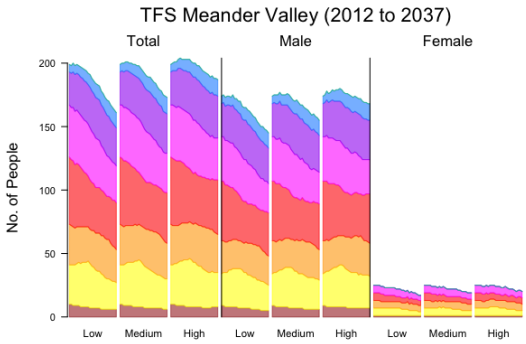

TFS Kentish (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

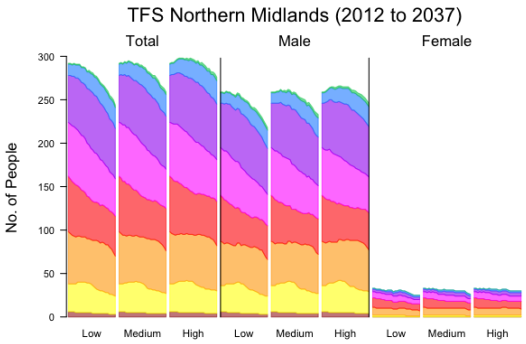

TFS King Island (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

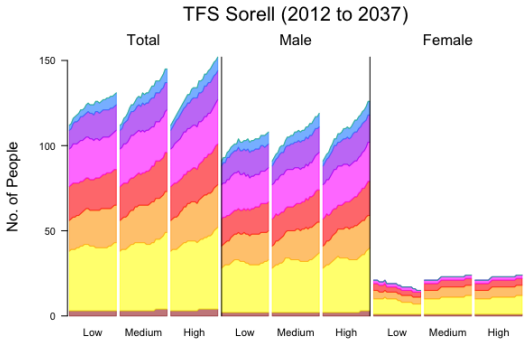

TFS Kingborough (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

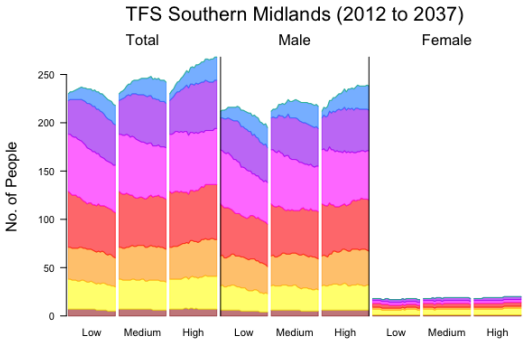

TFS Latrobe (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

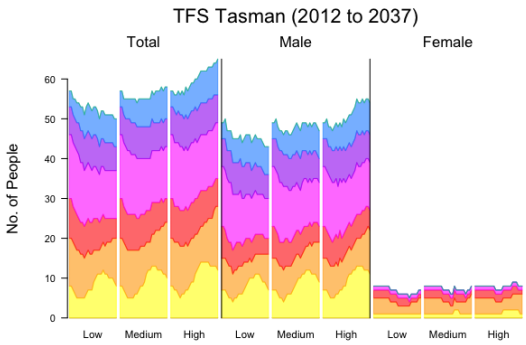

TFS Launceston (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

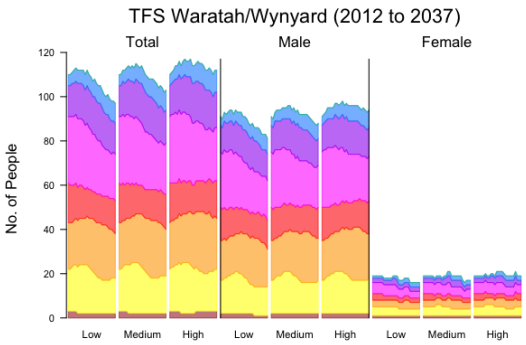

TFS Meander Valley (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
Low
Medium
High

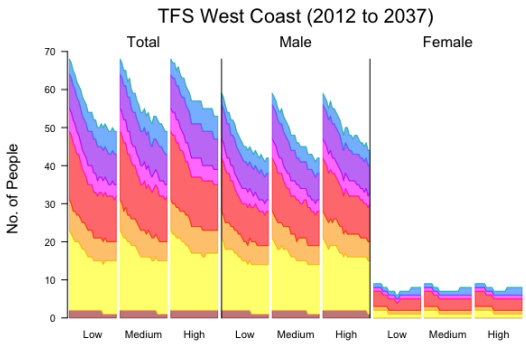

TFS Northern Midlands (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
300
Low
Medium
High

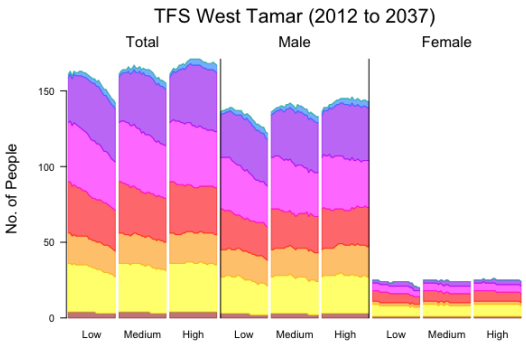

TFS Sorell (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
Low
Medium
High


TFS Southern Midlands (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
200
250
Low
Medium
High

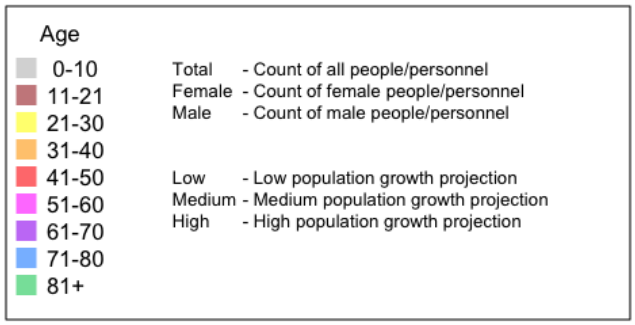

TFS Tasman (2012 to 2037)
Total
Male
Female
No. of People
0
10
20
30
40
50
60
Low
Medium
High

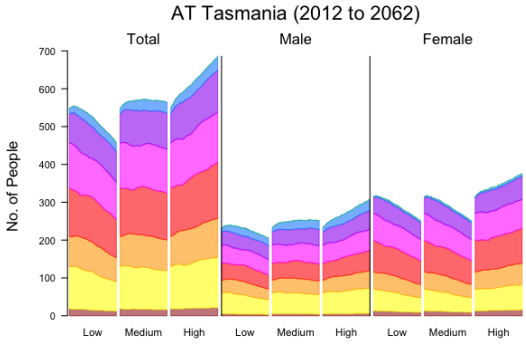

TFS Waratah/Wynyard (2012 to 2037)
Total
Male
Female
No. of People
0
20
40
60
80
100
120
Low
Medium
High

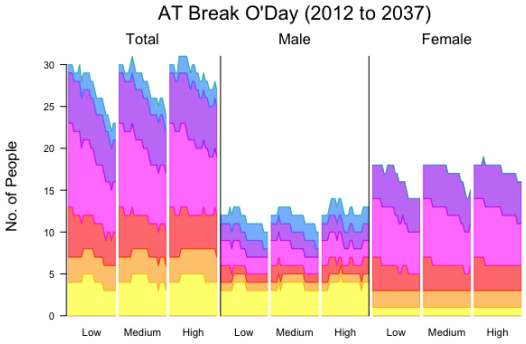

TFS West Coast (2012 to 2037)
Total
Male
Female
No. of People
0
10
20
30
40
50
60
70
Low
Medium
High

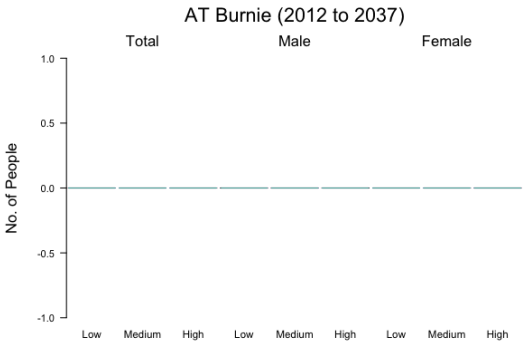

TFS West Tamar (2012 to 2037)
Total
Male
Female
No. of People
0
50
100
150
Low
Medium
High

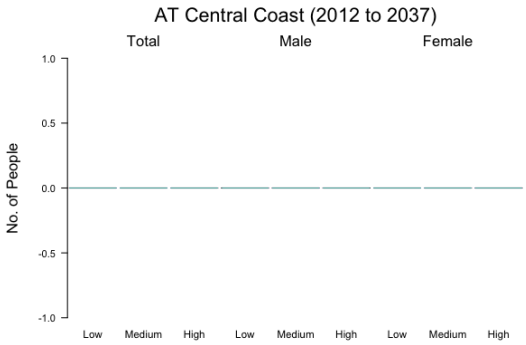
AT demographic changes per municipality

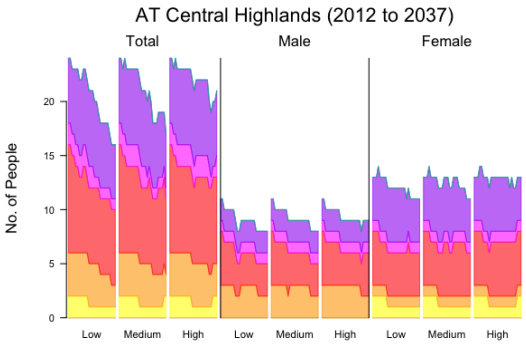


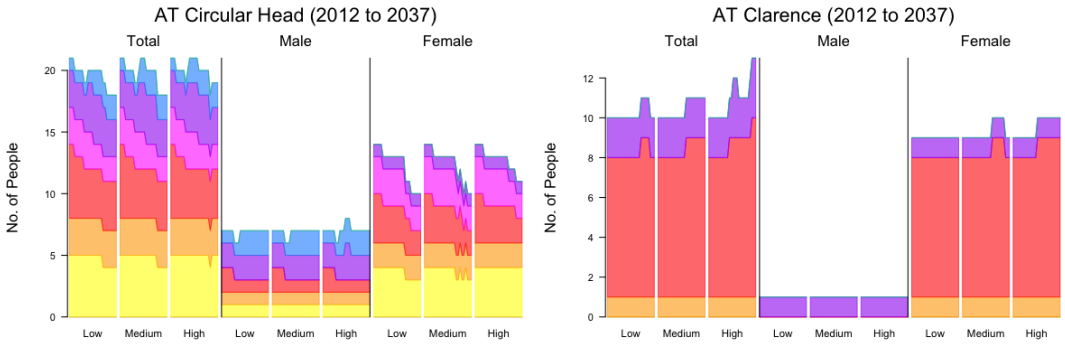




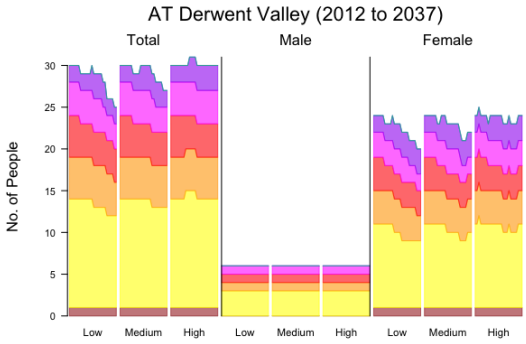


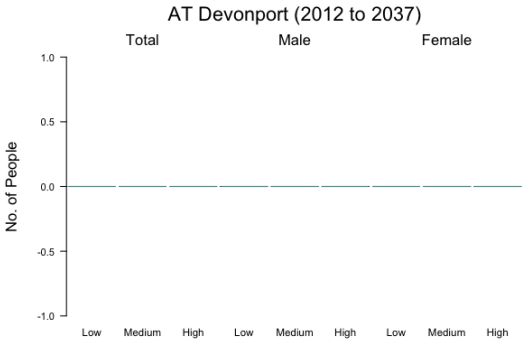


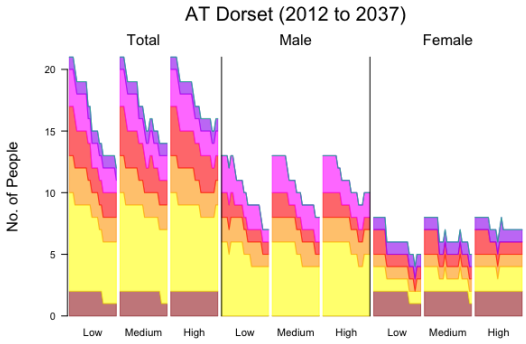


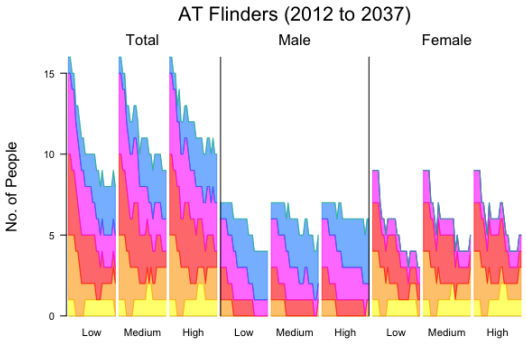

AT Circular Head (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

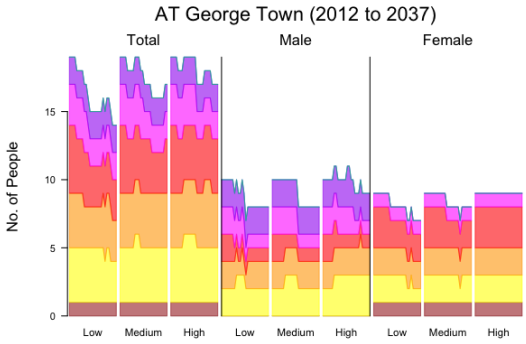
AT Clarence (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

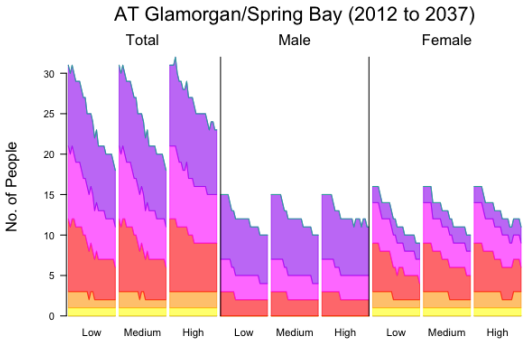

AT Derwent Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

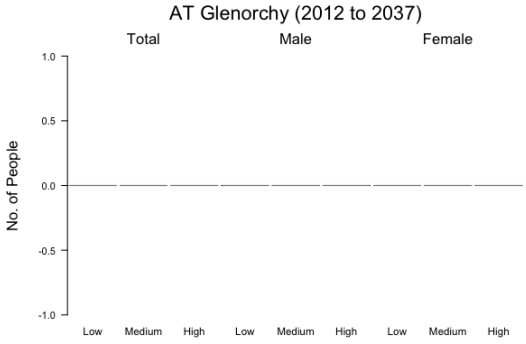

AT Devonport (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

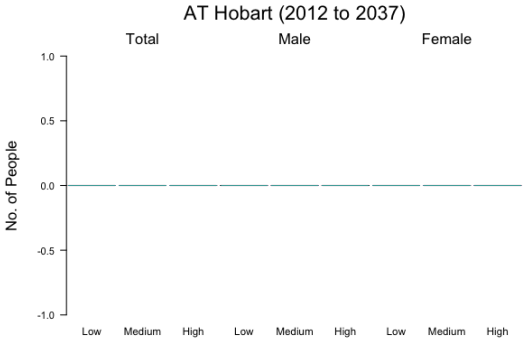

AT Dorset (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

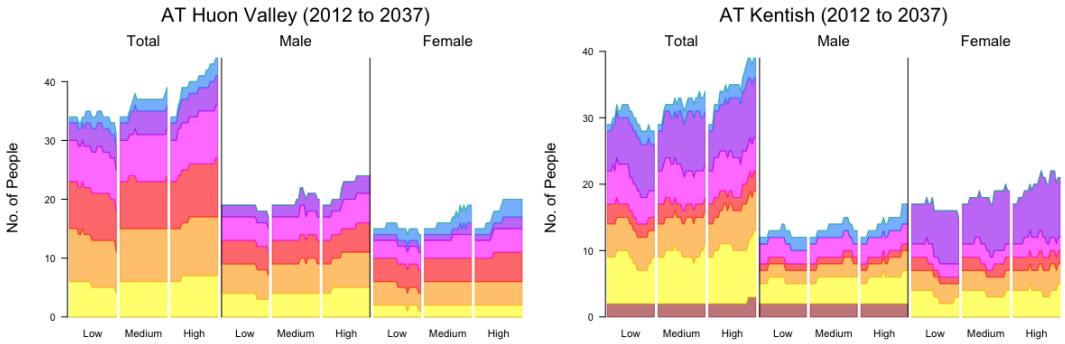

AT Flinders (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


AT George Town (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

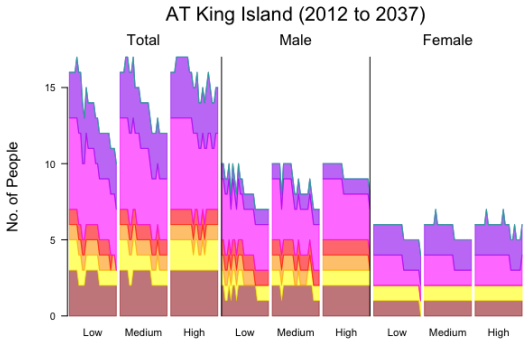

AT Glamorgan/Spring Bay (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

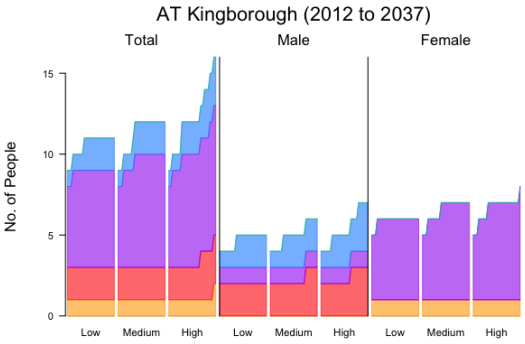

AT Glenorchy (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

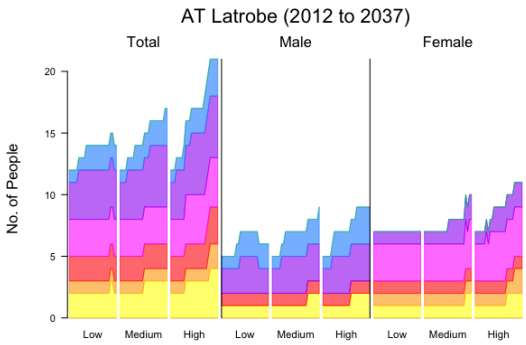

AT Hobart (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

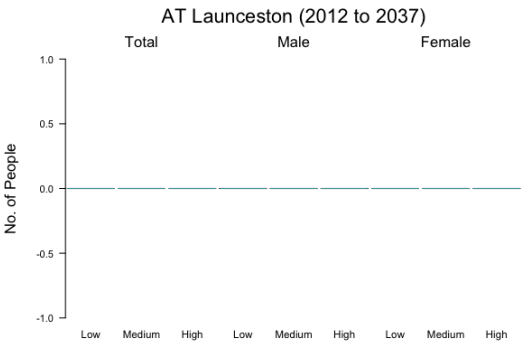

AT Huon Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

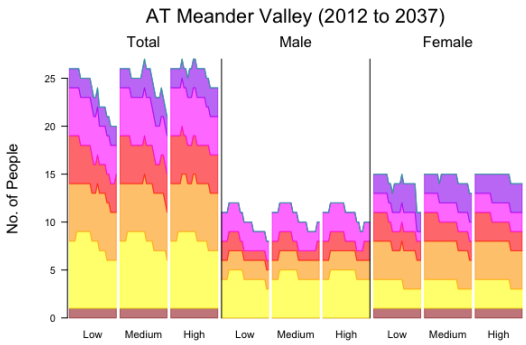
AT Kentish (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

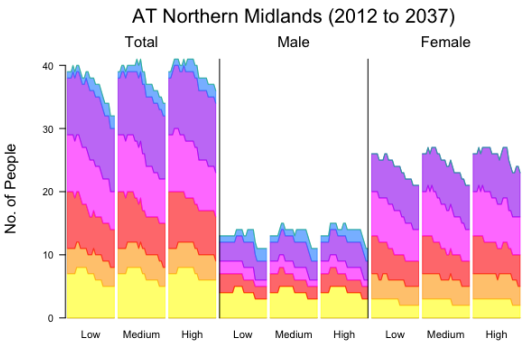

AT King Island (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

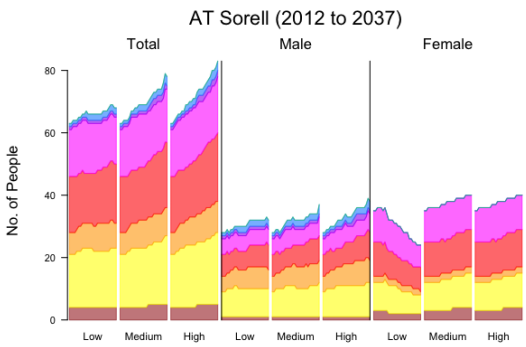

AT Kingborough (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

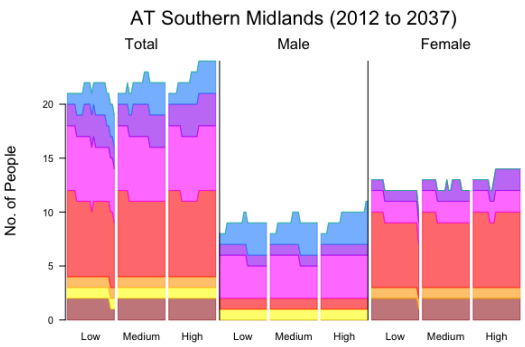

AT Latrobe (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

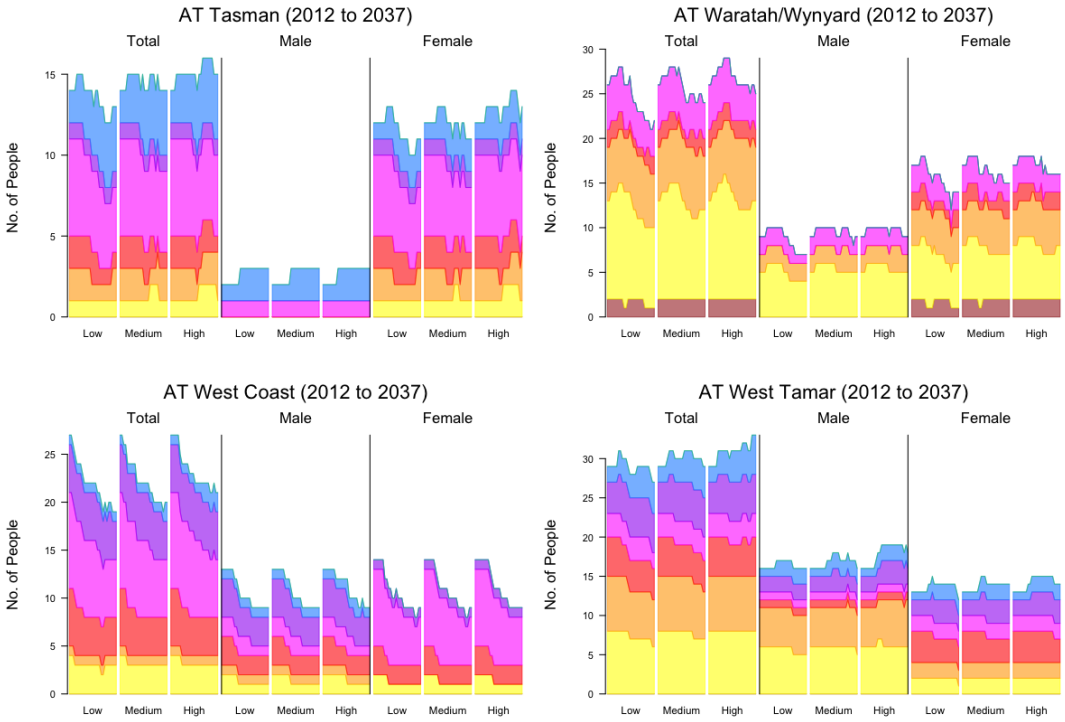

AT Launceston (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


AT Meander Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

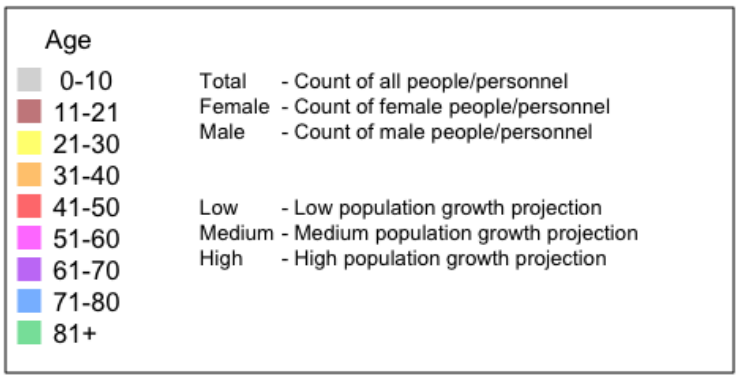

AT Northern Midlands (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

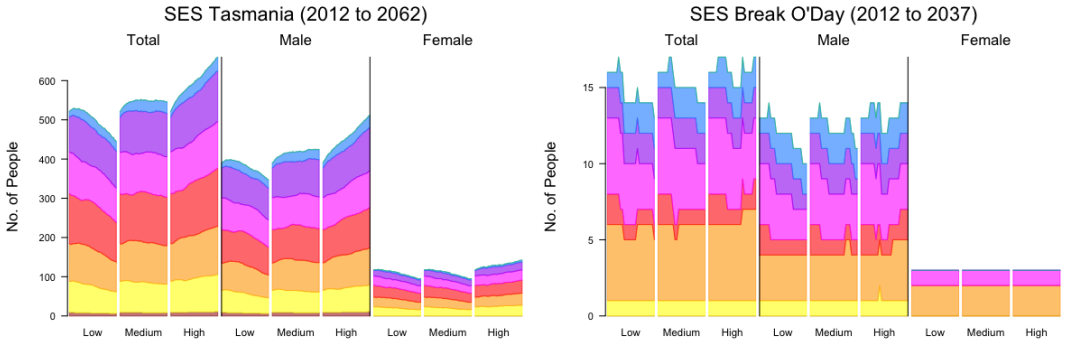

AT Sorell (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

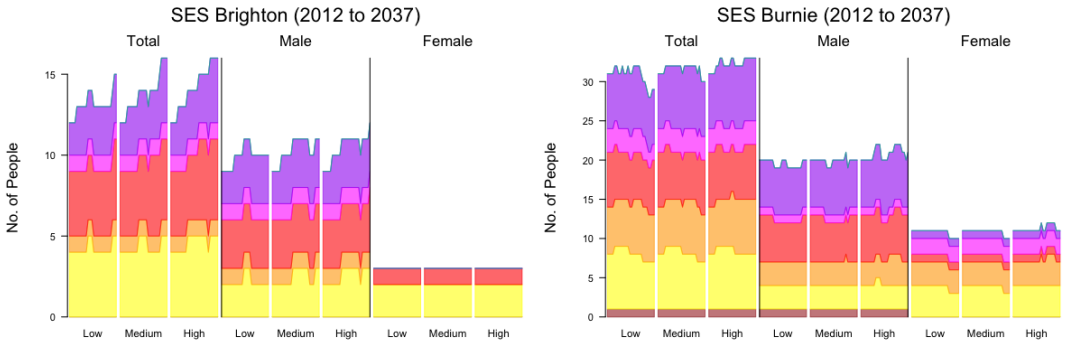

AT Southern Midlands (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High



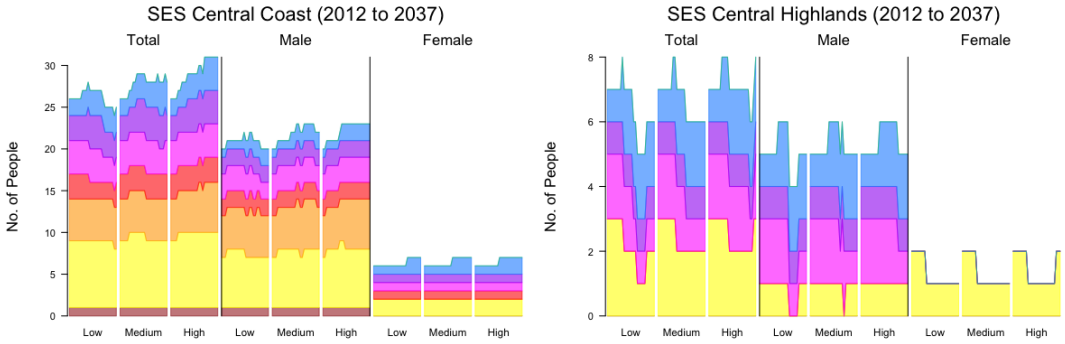
SES demographic changes per municipality



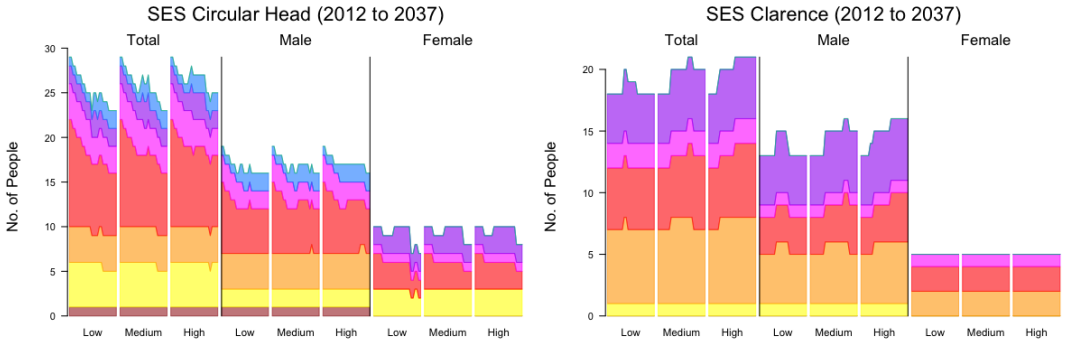



SES Brighton (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

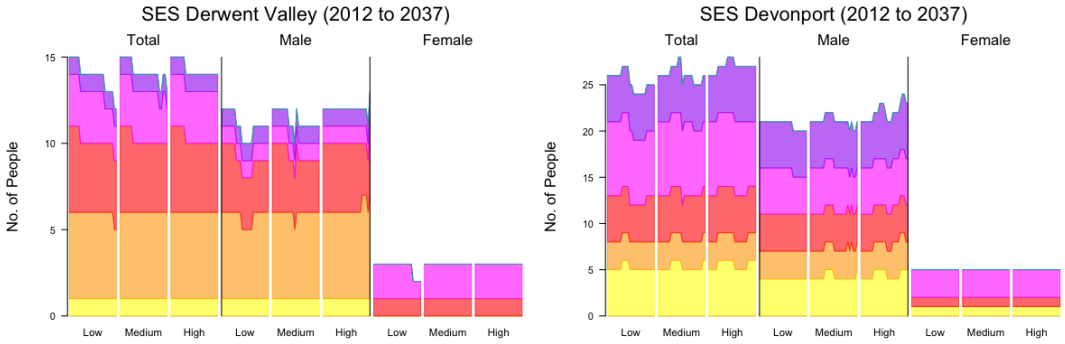
SES Burnie (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Central Coast (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

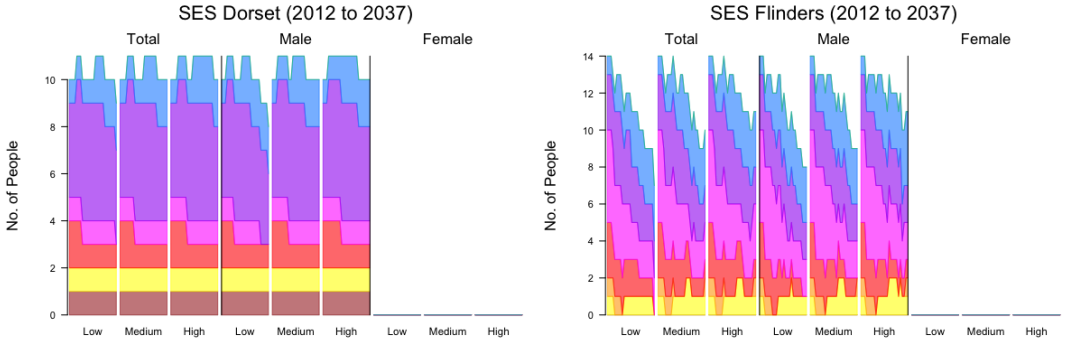
SES Central Highlands (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Circular Head (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

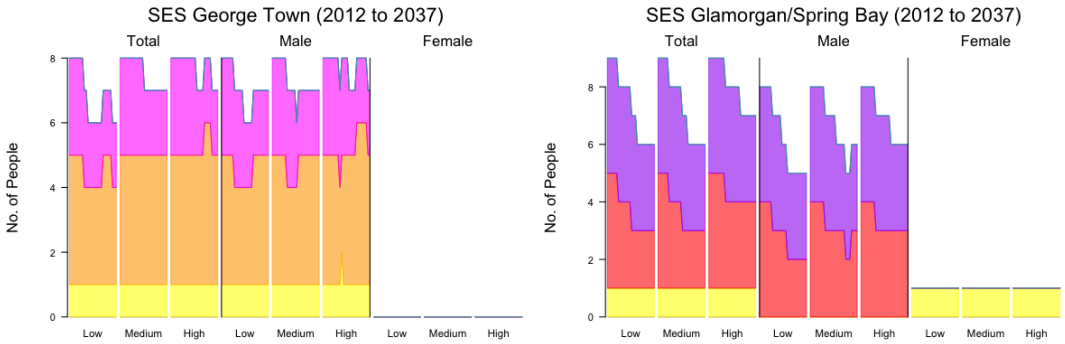
SES Clarence (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Derwent Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

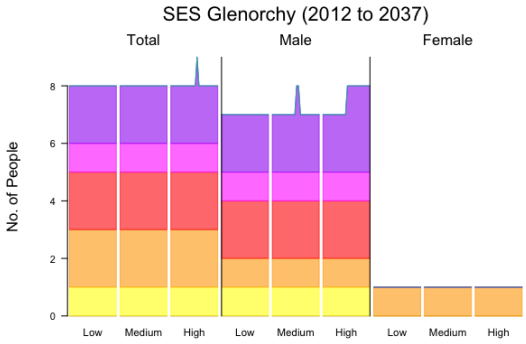
SES Devonport (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

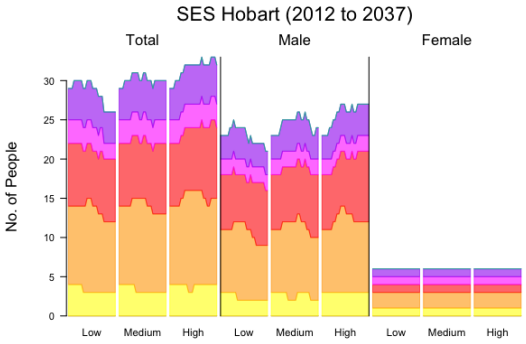

SES Dorset (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

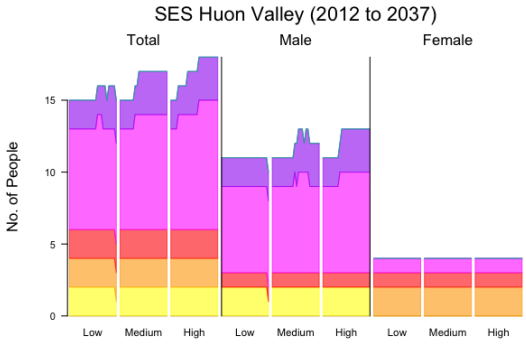
SES Flinders (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

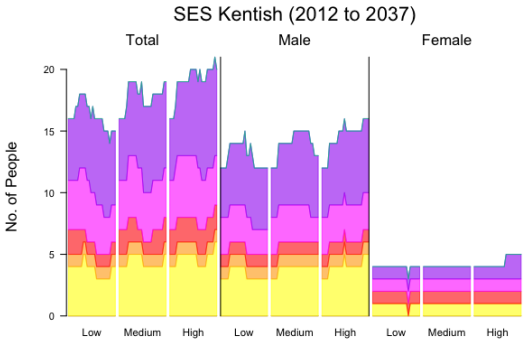

SES George Town (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

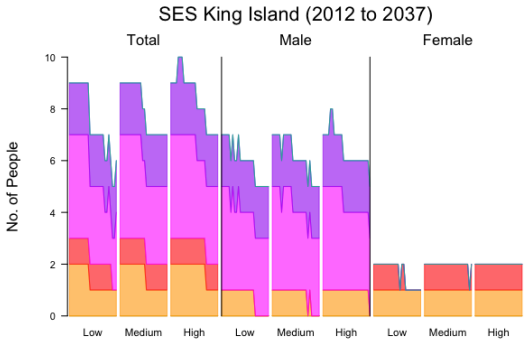
SES Glamorgan/Spring Bay (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

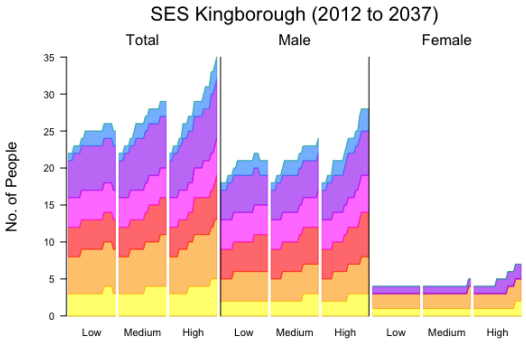

SES Glenorchy (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

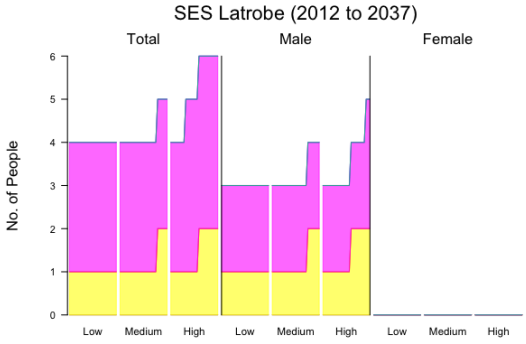

SES Hobart (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

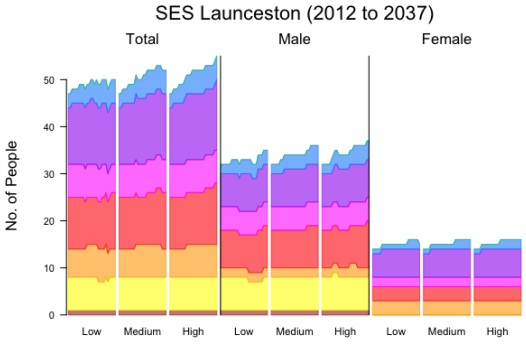

SES Huon Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

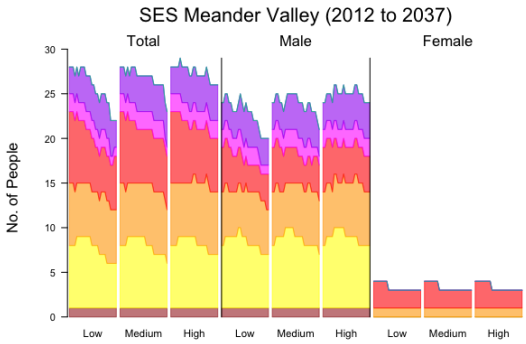

SES Kentish (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

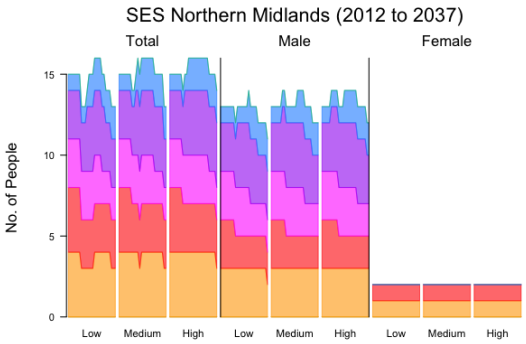

SES King Island (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Kingborough (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

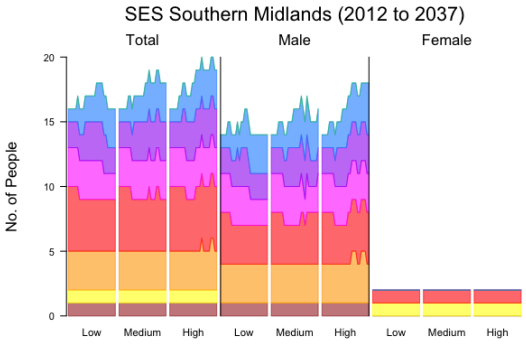

SES Latrobe (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

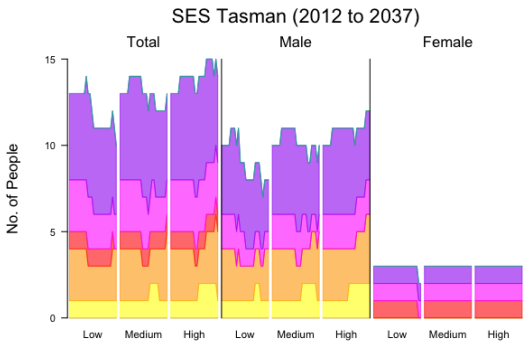

SES Launceston (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

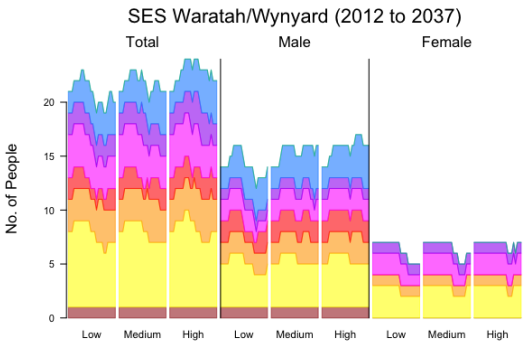

SES Meander Valley (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

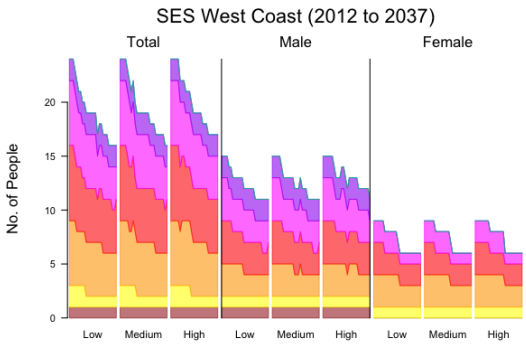

SES Northern Midlands (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

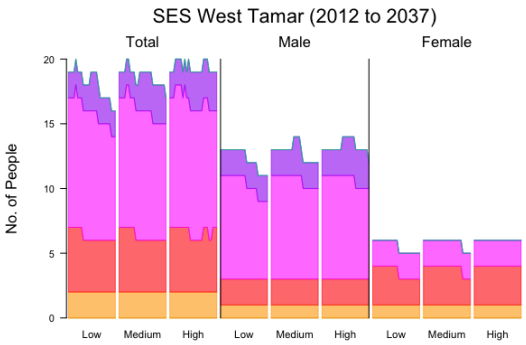

SES Sorell (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Southern Midlands (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Tasman (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES Waratah/Wynyard (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES West Coast (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High


SES West Tamar (2012 to 2037)
Total
Male
Female
No. of People
Low
Medium
High

Appendix B

Table presenting the projected total natural hazard danger in each municipality into the future.

Table B.1: Relative change of the Total Climate Hazard Danger in each municipality to 2100 compared to the base period (1960-1990).

Period	**Municipality**			
	Break O'Day	Brighton	Burnie	Central Coast
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)
1960-1979	0.82 (0.73 to 0.95)	0.93 (0.93 to 0.93)	0.81 (0.78 to 0.82)	0.81 (0.78 to 0.87)
1980-1999	1.10 (0.81 to 1.41)	0.90 (0.87 to 0.92)	0.83 (0.79 to 0.87)	0.80 (0.76 to 0.85)
2000-2019	1.24 (0.97 to 1.42)	1.15 (1.13 to 1.16)	1.03 (0.96 to 1.07)	0.99 (0.84 to 1.12)
2020-2039	2.32 (1.37 to 4.50)	2.23 (2.22 to 2.24)	1.15 (1.07 to 1.18)	1.14 (1.06 to 1.25)
2040-2059	2.10 (1.65 to 2.41)	1.68 (1.64 to 1.72)	1.41 (1.35 to 1.53)	1.41 (1.27 to 1.65)
2060-2079	2.83 (1.92 to 6.03)	2.36 (2.04 to 2.68)	1.64 (1.49 to 1.76)	1.65 (1.48 to 2.12)
2080-2099	3.19 (2.22 to 4.22)	3.73 (3.47 to 3.98)	2.29 (2.01 to 2.48)	2.48 (2.09 to 3.83)
	Central Highlands	Circular Head	Clarence	Derwent Valley
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)
1960-1979	0.85 (0.76 to 0.97)	0.83 (0.78 to 0.87)	0.87 (0.76 to 0.95)	0.85 (0.77 to 1.06)
1980-1999	0.92 (0.74 to 1.45)	0.84 (0.75 to 0.95)	1.03 (0.89 to 1.15)	0.91 (0.84 to 1.01)
2000-2019	1.15 (0.97 to 1.44)	1.05 (0.84 to 1.20)	1.20 (1.14 to 1.24)	1.07 (0.97 to 1.21)
2020-2039	1.88 (1.30 to 4.16)	1.27 (1.15 to 1.50)	1.53 (1.25 to 1.83)	1.52 (1.13 to 2.37)
2040-2059	1.81 (1.44 to 2.29)	1.61 (1.42 to 2.00)	1.83 (1.65 to 2.10)	1.77 (1.65 to 2.26)
2060-2079	2.79 (1.98 to 5.39)	1.90 (1.44 to 2.50)	2.81 (2.16 to 3.55)	2.33 (2.07 to 3.12)
2080-2099	3.59 (2.55 to 4.82)	2.82 (2.33 to 4.69)	3.23 (2.73 to 3.92)	3.44 (2.99 to 5.16)
	Devonport	Dorset	Flinders	George Town
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)
1960-1979	0.79 (0.79 to 0.79)	0.80 (0.73 to 0.91)	0.93 (0.86 to 0.96)	0.77 (0.70 to 0.87)
1980-1999	0.89 (0.89 to 0.89)	0.88 (0.80 to 1.04)	0.94 (0.83 to 1.05)	0.90 (0.78 to 1.03)
2000-2019	0.79 (0.79 to 0.79)	1.15 (1.00 to 1.34)	1.26 (1.01 to 1.58)	1.03 (0.96 to 1.11)
2020-2039	1.22 (1.22 to 1.22)	1.81 (1.34 to 2.64)	1.78 (1.14 to 2.70)	1.67 (1.52 to 1.95)
2040-2059	1.37 (1.37 to 1.37)	2.07 (1.80 to 2.82)	2.81 (1.50 to 4.08)	2.08 (1.79 to 2.58)
2060-2079	1.76 (1.76 to 1.76)	2.32 (1.87 to 4.09)	3.25 (2.42 to 5.94)	2.48 (1.82 to 4.76)
2080-2099	2.64 (2.64 to 2.64)	3.80 (3.16 to 7.43)	4.46 (3.23 to 8.81)	4.52 (3.15 to 8.13)

Continued on next page

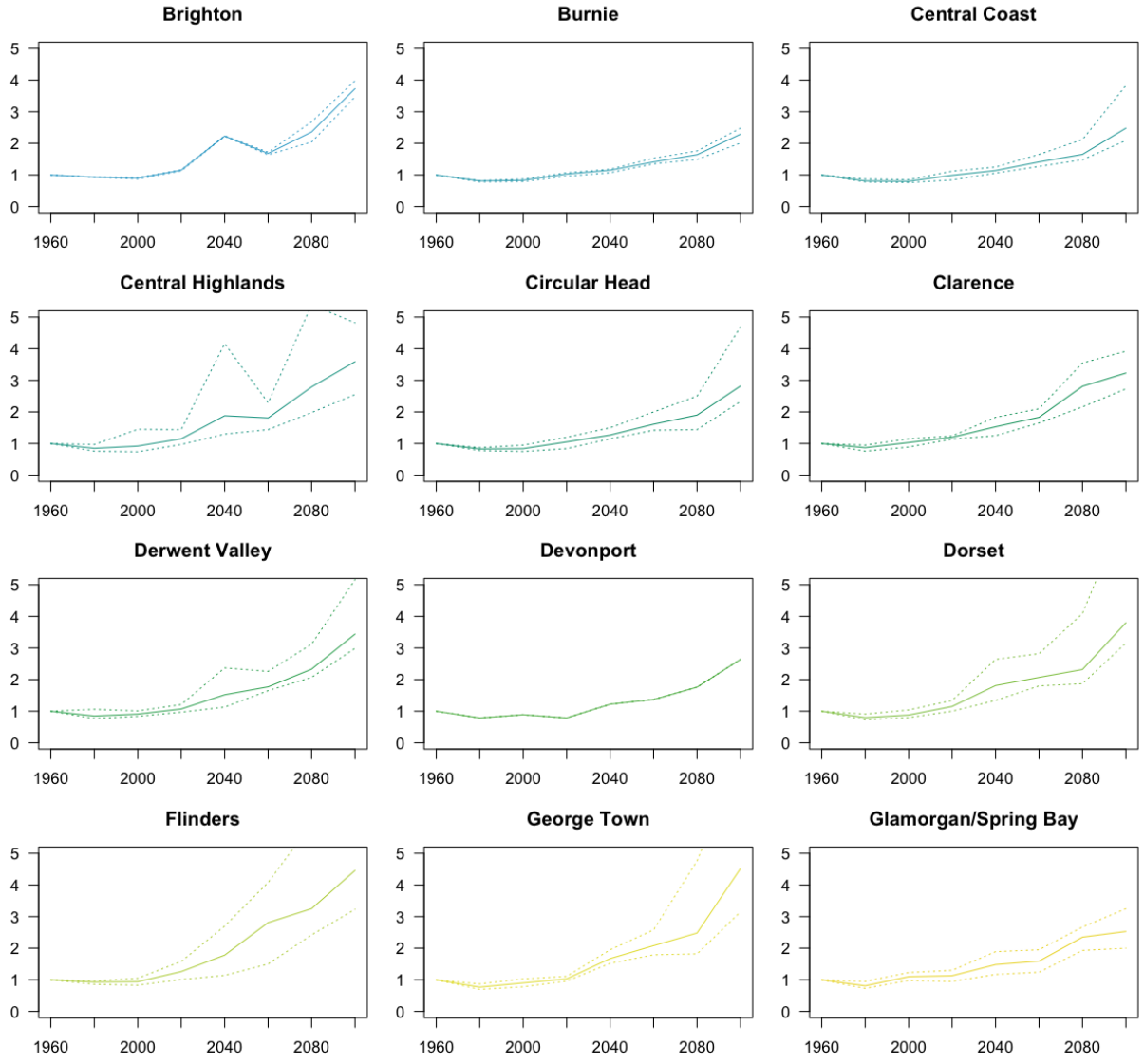
Table B.1 – continued from previous page

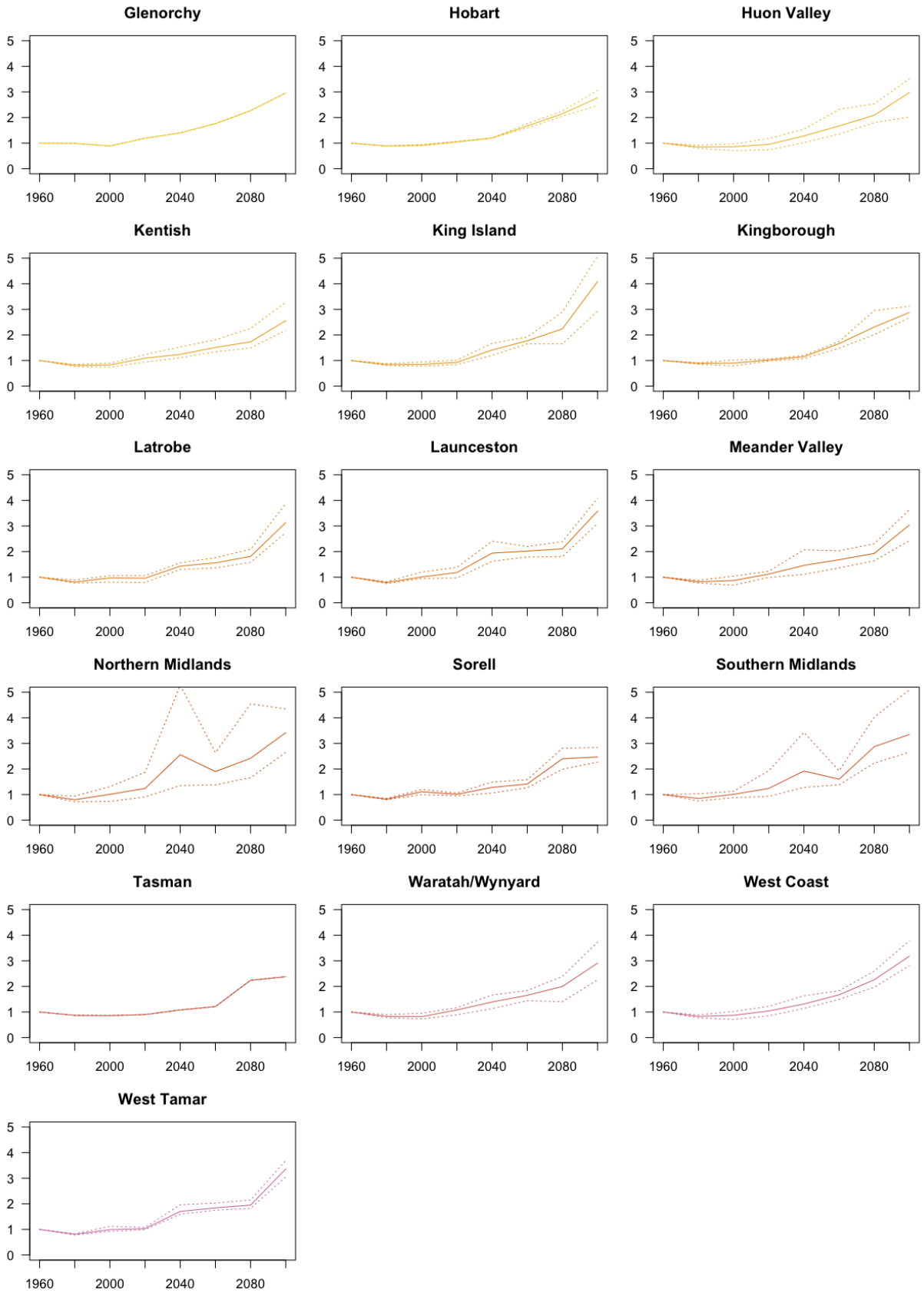
Period	Municipality			
	Glamorgan/Spring Bay	Glenorchy	Hobart	Huon Valley
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)
1960-1979	0.81 (0.73 to 0.95)	0.99 (0.99 to 0.99)	0.89 (0.88 to 0.89)	0.85 (0.80 to 0.92)
1980-1999	1.10 (0.98 to 1.23)	0.89 (0.89 to 0.89)	0.92 (0.90 to 0.95)	0.86 (0.71 to 0.97)
2000-2019	1.13 (0.95 to 1.30)	1.19 (1.19 to 1.19)	1.05 (1.04 to 1.07)	0.95 (0.74 to 1.18)
2020-2039	1.48 (1.17 to 1.89)	1.40 (1.40 to 1.40)	1.20 (1.20 to 1.20)	1.28 (1.02 to 1.54)
2040-2059	1.59 (1.24 to 1.95)	1.76 (1.76 to 1.76)	1.67 (1.59 to 1.76)	1.67 (1.35 to 2.32)
2060-2079	2.35 (1.93 to 2.67)	2.27 (2.27 to 2.27)	2.15 (2.05 to 2.25)	2.09 (1.80 to 2.54)
2080-2099	2.53 (2.00 to 3.25)	2.96 (2.96 to 2.96)	2.77 (2.47 to 3.06)	2.98 (2.02 to 3.51)
	Kentish	King Island	Kingborough	Latrobe
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)
1960-1979	0.81 (0.77 to 0.85)	0.84 (0.81 to 0.88)	0.89 (0.86 to 0.91)	0.81 (0.77 to 0.89)
1980-1999	0.83 (0.74 to 0.90)	0.85 (0.78 to 0.94)	0.90 (0.79 to 1.02)	0.97 (0.81 to 1.06)
2000-2019	1.09 (0.94 to 1.23)	0.93 (0.84 to 1.02)	1.02 (0.98 to 1.06)	0.96 (0.79 to 1.06)
2020-2039	1.24 (1.11 to 1.53)	1.41 (1.20 to 1.67)	1.15 (1.07 to 1.20)	1.43 (1.30 to 1.56)
2040-2059	1.51 (1.34 to 1.81)	1.77 (1.65 to 1.92)	1.66 (1.48 to 1.74)	1.56 (1.36 to 1.76)
2060-2079	1.73 (1.49 to 2.26)	2.24 (1.65 to 2.90)	2.31 (2.01 to 2.95)	1.81 (1.58 to 2.09)
2080-2099	2.56 (2.18 to 3.27)	4.09 (2.93 to 5.08)	2.88 (2.68 to 3.12)	3.13 (2.74 to 3.87)
	Latrobe	Launceston	Meander Valley	
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	
1960-1979	0.81 (0.77 to 0.89)	0.79 (0.75 to 0.82)	0.82 (0.77 to 0.88)	
1980-1999	0.97 (0.81 to 1.06)	1.01 (0.95 to 1.20)	0.87 (0.69 to 1.04)	
2000-2019	0.96 (0.79 to 1.06)	1.18 (0.97 to 1.38)	1.12 (0.99 to 1.23)	
2020-2039	1.43 (1.30 to 1.56)	1.94 (1.62 to 2.41)	1.46 (1.11 to 2.07)	
2040-2059	1.56 (1.36 to 1.76)	2.02 (1.79 to 2.20)	1.68 (1.36 to 2.03)	
2060-2079	1.81 (1.58 to 2.09)	2.11 (1.80 to 2.39)	1.93 (1.64 to 2.31)	
2080-2099	3.13 (2.74 to 3.87)	3.58 (3.10 to 4.08)	3.04 (2.43 to 3.64)	
	Northern Midlands	Sorell	Southern Midlands	
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	
1960-1979	0.80 (0.72 to 0.94)	0.82 (0.80 to 0.85)	0.85 (0.75 to 1.03)	
1980-1999	1.01 (0.73 to 1.31)	1.11 (1.00 to 1.20)	1.01 (0.88 to 1.13)	
2000-2019	1.24 (0.91 to 1.87)	1.01 (0.95 to 1.06)	1.24 (0.93 to 1.93)	
2020-2039	2.56 (1.35 to 5.28)	1.28 (1.06 to 1.49)	1.92 (1.28 to 3.43)	
2040-2059	1.90 (1.38 to 2.64)	1.41 (1.27 to 1.58)	1.60 (1.38 to 1.93)	
2060-2079	2.42 (1.66 to 4.54)	2.40 (1.99 to 2.81)	2.87 (2.23 to 4.03)	
2080-2099	3.42 (2.65 to 4.35)	2.47 (2.27 to 2.84)	3.35 (2.66 to 5.09)	
	Tasman	Waratah/Wynyard	West Coast	
1960-1990	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)	
1960-1979	0.87 (0.87 to 0.87)	0.83 (0.78 to 0.90)	0.83 (0.77 to 0.89)	
1980-1999	0.86 (0.86 to 0.86)	0.82 (0.73 to 0.95)	0.87 (0.71 to 1.02)	
2000-2019	0.90 (0.90 to 0.90)	1.08 (0.89 to 1.17)	1.04 (0.85 to 1.22)	
2020-2039	1.08 (1.08 to 1.08)	1.39 (1.13 to 1.66)	1.31 (1.14 to 1.63)	
2040-2059	1.21 (1.21 to 1.21)	1.65 (1.44 to 1.84)	1.67 (1.49 to 1.83)	
2060-2079	2.24 (2.24 to 2.24)	2.00 (1.40 to 2.39)	2.26 (1.97 to 2.60)	
2080-2099	2.38 (2.38 to 2.38)	2.91 (2.26 to 3.73)	3.18 (2.81 to 3.78)	

Appendix C

Figures presenting the projection of *total natural hazard danger* for each municipality

The y-axes are the relative danger compared to the historical period (standardised between 0× to 5× to allow easy inter-comparison). For example, a value of '2' means there is double the danger from climate hazards compared to that experienced between 1960-1990.




Glenorchy
Hobart
Huon Valley
Kentish
King Island
Kingborough
Latrobe
Launceston
Meander Valley
Northern Midlands
Sorell
Southern Midlands
Tasman
Waratah/Wynyard
West Coast
West Tamar
0
1
2
3
4
5
1960
2000
2040
2080

Appendix D

Tables presenting the projected person days expended by volunteers per year.

The number of 'person days' expended by volunteers in the Tasmanian Volunteer Network was estimated. For each of AT, SES and TFS in each municipality, for a low incident, typical or high incident year projections of expected workloads were calculated into the future. AT and SES provided data that allowed incidents to be separated into 'climate' and 'non-climate' related dangers. TFS only provided fire incident data related to vegetation fires. Climate hazards were able to be projected to 2100. However, demographic projections were not able to be projected past 2060, therefore, some incident types cannot be projected past this future time.

Table D.1: Projected change of the AT workload (effort index per year) in each municipality to 2100 compared to the base period (1960-1990).

Break O'Day

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (-1 to 0)	NA	NA
1980-1999	0 (0 to 0)	105 (104 to 106)	105 (104 to 106)
2000-2019	2 (0 to 2)	113 (107 to 120)	115 (107 to 122)
2020-2039	2 (1 to 4)	119 (103 to 139)	121 (104 to 143)
2040-2059	4 (3 to 6)	119 (94 to 153)	123 (97 to 159)
2060-2079	5 (3 to 8)	NA	NA
2080-2099	9 (6 to 12)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (-1 to 0)	NA	NA
1980-1999	0 (-1 to 0)	114 (114 to 115)	114 (113 to 115)
2000-2019	2 (0 to 3)	123 (117 to 131)	125 (117 to 134)
2020-2039	2 (1 to 4)	130 (112 to 152)	132 (113 to 156)
2040-2059	5 (3 to 6)	130 (103 to 167)	135 (106 to 173)
2060-2079	5 (3 to 8)	NA	NA
2080-2099	10 (6 to 13)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (-1 to 0)	NA	NA
1980-1999	0 (-1 to 0)	118 (118 to 119)	118 (117 to 119)
2000-2019	2 (0 to 3)	128 (121 to 136)	130 (121 to 139)
2020-2039	2 (1 to 4)	134 (116 to 157)	136 (117 to 161)
2040-2059	5 (3 to 7)	135 (106 to 173)	140 (109 to 180)
2060-2079	6 (3 to 9)	NA	NA
2080-2099	10 (6 to 14)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Brighton

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Burnie

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Central Coast

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Central Highlands

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	15 (15 to 15)	15 (15 to 15)
2000-2019	1 (1 to 1)	16 (15 to 17)	17 (16 to 18)
2020-2039	1 (1 to 1)	16 (14 to 19)	17 (15 to 20)
2040-2059	1 (1 to 1)	15 (12 to 20)	16 (13 to 21)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	2 (1 to 2)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	18 (17 to 18)	18 (17 to 18)
2000-2019	1 (1 to 1)	19 (18 to 20)	20 (19 to 21)
2020-2039	1 (1 to 1)	19 (17 to 22)	20 (18 to 23)
2040-2059	1 (1 to 1)	18 (14 to 23)	19 (15 to 24)
2060-2079	1 (1 to 2)	NA	NA
2080-2099	2 (2 to 2)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	21 (21 to 21)	21 (21 to 21)
2000-2019	1 (1 to 1)	23 (21 to 24)	24 (22 to 25)
2020-2039	1 (1 to 1)	23 (20 to 27)	24 (21 to 28)
2040-2059	1 (1 to 1)	21 (17 to 28)	22 (18 to 29)
2060-2079	2 (1 to 2)	NA	NA
2080-2099	2 (2 to 3)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Circular Head

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Clarence

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Derwent Valley

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	8 (8 to 8)	8 (8 to 8)
2000-2019	1 (0 to 1)	9 (8 to 9)	10 (8 to 10)
2020-2039	1 (0 to 1)	9 (8 to 10)	10 (8 to 11)
2040-2059	1 (1 to 1)	9 (7 to 11)	10 (8 to 12)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	10 (10 to 10)	10 (10 to 10)
2000-2019	1 (0 to 1)	11 (10 to 11)	12 (10 to 12)
2020-2039	1 (0 to 1)	11 (10 to 13)	12 (10 to 14)
2040-2059	1 (1 to 1)	11 (9 to 13)	12 (10 to 14)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	12 (11 to 12)	12 (11 to 12)
2000-2019	1 (0 to 1)	12 (11 to 13)	13 (11 to 14)
2020-2039	1 (0 to 1)	12 (11 to 14)	13 (11 to 15)
2040-2059	1 (1 to 1)	12 (10 to 15)	13 (11 to 16)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Devonport

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Continued on next page

Table D.1 Projected change of the AT workload – continued from previous page

Dorset

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Flinders

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	16 (16 to 16)	16 (16 to 16)
2000-2019	1 (1 to 1)	17 (16 to 18)	18 (17 to 19)
2020-2039	1 (1 to 1)	16 (13 to 18)	17 (14 to 19)
2040-2059	1 (1 to 2)	15 (10 to 18)	16 (11 to 20)
2060-2079	1 (1 to 3)	NA	NA
2080-2099	2 (1 to 5)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	20 (20 to 20)	20 (20 to 20)
2000-2019	1 (1 to 1)	21 (20 to 22)	22 (21 to 23)
2020-2039	1 (1 to 1)	20 (16 to 23)	21 (17 to 24)
2040-2059	1 (1 to 2)	18 (12 to 23)	19 (13 to 25)
2060-2079	2 (1 to 3)	NA	NA
2080-2099	3 (2 to 6)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	22 (21 to 22)	22 (21 to 22)
2000-2019	1 (1 to 1)	23 (21 to 24)	24 (22 to 25)
2020-2039	1 (1 to 2)	21 (17 to 24)	22 (18 to 26)
2040-2059	1 (1 to 2)	19 (13 to 24)	20 (14 to 26)
2060-2079	2 (1 to 4)	NA	NA
2080-2099	3 (2 to 6)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

George Town

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Glamorgan/Spring Bay

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	45 (45 to 46)	45 (45 to 46)
2000-2019	1 (0 to 1)	46 (46 to 51)	47 (46 to 52)
2020-2039	1 (1 to 1)	41 (41 to 55)	42 (42 to 56)
2040-2059	2 (1 to 2)	34 (34 to 57)	36 (35 to 59)
2060-2079	2 (1 to 3)	NA	NA
2080-2099	3 (2 to 5)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	49 (49 to 49)	49 (49 to 49)
2000-2019	1 (0 to 1)	49 (49 to 55)	50 (49 to 56)
2020-2039	1 (1 to 1)	44 (44 to 60)	45 (45 to 61)
2040-2059	2 (1 to 2)	36 (36 to 62)	38 (37 to 64)
2060-2079	2 (1 to 3)	NA	NA
2080-2099	4 (2 to 5)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	51 (51 to 52)	51 (51 to 52)
2000-2019	1 (0 to 1)	52 (52 to 58)	53 (52 to 59)
2020-2039	1 (1 to 1)	46 (46 to 63)	47 (47 to 64)
2040-2059	2 (1 to 2)	38 (38 to 65)	40 (39 to 67)
2060-2079	2 (1 to 3)	NA	NA
2080-2099	4 (3 to 5)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Glenorchy

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Hobart

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Huon Valley

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	14 (14 to 14)	14 (14 to 14)
2000-2019	0 (0 to 1)	16 (15 to 18)	16 (15 to 19)
2020-2039	1 (0 to 1)	19 (16 to 23)	20 (16 to 24)
2040-2059	1 (1 to 1)	21 (15 to 27)	22 (16 to 28)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	16 (16 to 17)	16 (16 to 17)
2000-2019	0 (0 to 1)	19 (18 to 21)	19 (18 to 22)
2020-2039	1 (0 to 1)	23 (18 to 27)	24 (18 to 28)
2040-2059	1 (1 to 1)	25 (18 to 32)	26 (19 to 33)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	19 (18 to 19)	19 (18 to 19)
2000-2019	0 (0 to 1)	22 (20 to 24)	22 (20 to 25)
2020-2039	1 (0 to 1)	26 (21 to 31)	27 (21 to 32)
2040-2059	1 (1 to 1)	29 (21 to 37)	30 (22 to 38)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	2 (1 to 2)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Kentish

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

King Island

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	25 (25 to 26)	25 (25 to 26)
2000-2019	0 (0 to 1)	24 (22 to 27)	24 (22 to 28)
2020-2039	1 (1 to 1)	22 (19 to 29)	23 (20 to 30)
2040-2059	1 (1 to 1)	22 (16 to 30)	23 (17 to 31)
2060-2079	2 (1 to 2)	NA	NA
2080-2099	3 (2 to 4)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	29 (28 to 30)	29 (28 to 30)
2000-2019	0 (0 to 1)	27 (25 to 32)	27 (25 to 33)
2020-2039	1 (1 to 1)	26 (21 to 34)	27 (22 to 35)
2040-2059	1 (1 to 1)	25 (18 to 35)	26 (19 to 36)
2060-2079	2 (1 to 3)	NA	NA
2080-2099	3 (2 to 4)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	32 (32 to 33)	32 (32 to 33)
2000-2019	0 (0 to 1)	31 (29 to 36)	31 (29 to 37)
2020-2039	1 (1 to 1)	29 (24 to 38)	30 (25 to 39)
2040-2059	1 (1 to 2)	28 (20 to 39)	29 (21 to 41)
2060-2079	2 (1 to 3)	NA	NA
2080-2099	3 (2 to 5)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Kingborough

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	15 (15 to 16)	15 (15 to 16)
2000-2019	0 (0 to 1)	19 (17 to 20)	19 (17 to 21)
2020-2039	1 (1 to 1)	23 (19 to 27)	24 (20 to 28)
2040-2059	1 (1 to 1)	27 (20 to 34)	28 (21 to 35)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	18 (17 to 18)	18 (17 to 18)
2000-2019	0 (0 to 1)	21 (19 to 23)	21 (19 to 24)
2020-2039	1 (1 to 1)	26 (22 to 31)	27 (23 to 32)
2040-2059	1 (1 to 1)	31 (23 to 38)	32 (24 to 39)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	23 (23 to 23)	23 (23 to 23)
2000-2019	0 (0 to 1)	28 (26 to 30)	28 (26 to 31)
2020-2039	1 (1 to 1)	35 (29 to 41)	36 (30 to 42)
2040-2059	1 (1 to 1)	41 (31 to 51)	42 (32 to 52)
2060-2079	1 (1 to 2)	NA	NA
2080-2099	2 (1 to 2)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Latrobe

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Launceston

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Meander Valley

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Northern Midlands

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	11 (11 to 11)	11 (11 to 11)
2000-2019	1 (1 to 1)	11 (11 to 12)	12 (12 to 13)
2020-2039	1 (1 to 1)	11 (10 to 12)	12 (11 to 13)
2040-2059	1 (1 to 1)	11 (9 to 13)	12 (10 to 14)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	12 (12 to 12)	12 (12 to 12)
2000-2019	1 (1 to 1)	13 (12 to 13)	14 (13 to 14)
2020-2039	1 (1 to 1)	12 (11 to 14)	13 (12 to 15)
2040-2059	1 (1 to 1)	12 (10 to 14)	13 (11 to 15)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 2)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	14 (14 to 15)	14 (14 to 15)
2000-2019	1 (1 to 1)	15 (14 to 15)	16 (15 to 16)
2020-2039	1 (1 to 1)	15 (13 to 16)	16 (14 to 17)
2040-2059	1 (1 to 1)	14 (12 to 17)	15 (13 to 18)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	2 (1 to 2)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Sorell

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	42 (41 to 42)	42 (41 to 42)
2000-2019	1 (1 to 1)	51 (48 to 53)	52 (49 to 54)
2020-2039	1 (1 to 1)	65 (57 to 71)	66 (58 to 72)
2040-2059	1 (1 to 1)	76 (62 to 86)	77 (63 to 87)
2060-2079	1 (1 to 2)	NA	NA
2080-2099	2 (2 to 3)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	46 (45 to 46)	46 (45 to 46)
2000-2019	1 (1 to 1)	56 (53 to 58)	57 (54 to 59)
2020-2039	1 (1 to 1)	71 (62 to 77)	72 (63 to 78)
2040-2059	1 (1 to 2)	84 (69 to 95)	85 (70 to 97)
2060-2079	2 (1 to 2)	NA	NA
2080-2099	3 (2 to 3)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	47 (47 to 47)	47 (47 to 47)
2000-2019	1 (1 to 1)	58 (55 to 60)	59 (56 to 61)
2020-2039	1 (1 to 1)	73 (64 to 80)	74 (65 to 81)
2040-2059	1 (1 to 2)	87 (71 to 98)	88 (72 to 100)
2060-2079	2 (1 to 2)	NA	NA
2080-2099	3 (2 to 3)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Southern Midlands

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	28 (28 to 28)	28 (28 to 28)
2000-2019	1 (1 to 1)	32 (30 to 34)	33 (31 to 35)
2020-2039	1 (1 to 1)	37 (32 to 42)	38 (33 to 43)
2040-2059	1 (1 to 1)	40 (32 to 49)	41 (33 to 50)
2060-2079	2 (1 to 2)	NA	NA
2080-2099	2 (2 to 3)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	30 (30 to 30)	30 (30 to 30)
2000-2019	1 (1 to 1)	35 (33 to 37)	36 (34 to 38)
2020-2039	1 (1 to 1)	40 (34 to 45)	41 (35 to 46)
2040-2059	1 (1 to 1)	43 (35 to 53)	44 (36 to 54)
2060-2079	2 (2 to 2)	NA	NA
2080-2099	3 (2 to 3)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	33 (33 to 34)	33 (33 to 34)
2000-2019	1 (1 to 1)	38 (36 to 40)	39 (37 to 41)
2020-2039	1 (1 to 1)	44 (38 to 50)	45 (39 to 51)
2040-2059	1 (1 to 1)	48 (38 to 59)	49 (39 to 60)
2060-2079	2 (2 to 2)	NA	NA
2080-2099	3 (3 to 3)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Tasman

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

Waratah/Wynyard

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	5 (5 to 5)	5 (5 to 5)
2000-2019	1 (0 to 1)	6 (5 to 6)	7 (5 to 7)
2020-2039	1 (1 to 1)	6 (5 to 6)	7 (6 to 7)
2040-2059	1 (1 to 1)	6 (5 to 7)	7 (6 to 8)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 1)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	6 (6 to 6)	6 (6 to 6)
2000-2019	1 (0 to 1)	6 (6 to 7)	7 (6 to 8)
2020-2039	1 (1 to 1)	7 (6 to 7)	8 (7 to 8)
2040-2059	1 (1 to 1)	7 (6 to 8)	8 (7 to 9)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 1)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	8 (8 to 8)	8 (8 to 8)
2000-2019	1 (0 to 1)	8 (8 to 8)	9 (8 to 9)
2020-2039	1 (1 to 1)	8 (8 to 9)	9 (9 to 10)
2040-2059	1 (1 to 1)	8 (7 to 10)	9 (8 to 11)
2060-2079	1 (1 to 1)	NA	NA
2080-2099	1 (1 to 1)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

West Coast

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	41 (40 to 41)	41 (40 to 41)
2000-2019	1 (0 to 1)	35 (32 to 39)	36 (32 to 40)
2020-2039	1 (0 to 1)	29 (26 to 35)	30 (26 to 36)
2040-2059	1 (1 to 2)	24 (22 to 31)	25 (23 to 33)
2060-2079	2 (2 to 3)	NA	NA
2080-2099	3 (3 to 5)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	44 (44 to 45)	44 (44 to 45)
2000-2019	1 (0 to 1)	39 (35 to 43)	40 (35 to 44)
2020-2039	1 (0 to 1)	31 (28 to 38)	32 (28 to 39)
2040-2059	1 (1 to 2)	26 (24 to 34)	27 (25 to 36)
2060-2079	2 (2 to 3)	NA	NA
2080-2099	3 (3 to 5)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	48 (48 to 49)	48 (48 to 49)
2000-2019	1 (0 to 1)	42 (38 to 46)	43 (38 to 47)
2020-2039	1 (0 to 1)	34 (30 to 41)	35 (30 to 42)
2040-2059	1 (1 to 2)	29 (26 to 37)	30 (27 to 39)
2060-2079	3 (2 to 4)	NA	NA
2080-2099	4 (3 to 6)	NA	NA

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Table D.1 Projected change of the AT workload – continued from previous page

West Tamar

Low incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Typical year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

High incident year

Period	Heatstress	Demographic	Effort Index
1960-1990	0 (0 to 0)	NA	NA
1960-1979	0 (0 to 0)	NA	NA
1980-1999	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2000-2019	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2020-2039	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2040-2059	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)
2060-2079	0 (0 to 0)	NA	NA
2080-2099	0 (0 to 0)	NA	NA

Table D.2: Projected change of the SES workload (effort index per year) in each municipality to 2100 compared to the base period (1960-1990).

Break O'Day

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	4 (4 to 4)	NA	NA	NA	NA	NA
1960-1979	4 (3 to 4)	NA	NA	NA	NA	NA
1980-1999	5 (4 to 6)	38 (38 to 38)	0 (0 to 0)	18 (14 to 21)	1 (1 to 1)	65 (59 to 71)
2000-2019	5 (4 to 6)	40 (39 to 42)	0 (0 to 0)	21 (17 to 24)	1 (1 to 1)	70 (62 to 78)
2020-2039	10 (6 to 18)	42 (39 to 45)	0 (0 to 0)	30 (22 to 46)	1 (1 to 1)	86 (70 to 115)
2040-2059	9 (7 to 10)	41 (37 to 47)	0 (0 to 0)	39 (27 to 67)	1 (1 to 2)	93 (74 to 131)
2060-2079	12 (8 to 24)	NA	NA	NA	NA	NA
2080-2099	13 (9 to 17)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	39 (39 to 39)	NA	NA	NA	NA	NA
1960-1979	32 (29 to 38)	NA	NA	NA	NA	NA
1980-1999	43 (32 to 55)	60 (60 to 61)	0 (0 to 0)	69 (53 to 82)	4 (3 to 5)	189 (159 to 221)
2000-2019	49 (38 to 56)	65 (63 to 67)	0 (0 to 0)	80 (64 to 91)	5 (4 to 5)	210 (177 to 234)
2020-2039	91 (54 to 176)	66 (62 to 71)	0 (0 to 0)	117 (85 to 177)	7 (5 to 10)	299 (218 to 470)
2040-2059	82 (65 to 94)	66 (60 to 75)	0 (0 to 0)	152 (103 to 262)	8 (6 to 14)	320 (244 to 460)
2060-2079	111 (75 to 236)	NA	NA	NA	NA	NA
2080-2099	125 (87 to 165)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	109 (109 to 109)	NA	NA	NA	NA	NA
1960-1979	89 (80 to 104)	NA	NA	NA	NA	NA
1980-1999	120 (88 to 154)	85 (85 to 85)	17 (17 to 17)	111 (85 to 131)	13 (10 to 15)	421 (349 to 493)
2000-2019	135 (106 to 155)	91 (89 to 94)	20 (20 to 20)	128 (103 to 145)	15 (12 to 17)	453 (387 to 509)
2020-2039	252 (149 to 489)	94 (88 to 100)	23 (23 to 23)	188 (136 to 283)	21 (16 to 32)	683 (486 to 1129)
2040-2059	228 (180 to 262)	93 (84 to 105)	25 (25 to 25)	243 (164 to 419)	28 (19 to 47)	688 (531 to 940)
2060-2079	308 (209 to 655)	NA	NA	NA	NA	NA
2080-2099	347 (241 to 458)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

Brighton

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	24 (24 to 24)	NA	NA	NA	NA	NA
1960-1979	23 (23 to 23)	NA	NA	NA	NA	NA
1980-1999	22 (21 to 23)	5 (5 to 5)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	48 (46 to 51)
2000-2019	28 (28 to 28)	6 (6 to 6)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	53 (52 to 56)
2020-2039	54 (54 to 54)	7 (6 to 7)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	99 (96 to 102)
2040-2059	41 (40 to 42)	7 (7 to 8)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	70 (67 to 74)
2060-2079	57 (49 to 65)	NA	NA	NA	NA	NA
2080-2099	90 (84 to 96)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	51 (51 to 51)	NA	NA	NA	NA	NA
1960-1979	48 (48 to 48)	NA	NA	NA	NA	NA
1980-1999	46 (45 to 47)	11 (11 to 11)	0 (0 to 0)	4 (4 to 4)	0 (0 to 0)	89 (87 to 92)
2000-2019	59 (58 to 60)	13 (12 to 13)	0 (0 to 0)	5 (5 to 5)	0 (0 to 0)	103 (99 to 107)
2020-2039	114 (114 to 115)	15 (14 to 15)	0 (0 to 0)	7 (7 to 7)	0 (0 to 0)	188 (185 to 192)
2040-2059	86 (84 to 88)	16 (15 to 17)	0 (0 to 0)	10 (10 to 10)	0 (0 to 0)	141 (136 to 147)
2060-2079	121 (105 to 137)	NA	NA	NA	NA	NA
2080-2099	191 (177 to 203)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	94 (94 to 94)	NA	NA	NA	NA	NA
1960-1979	88 (88 to 88)	NA	NA	NA	NA	NA
1980-1999	85 (82 to 87)	33 (33 to 33)	11 (11 to 11)	24 (24 to 25)	1 (1 to 1)	193 (189 to 199)
2000-2019	109 (107 to 110)	38 (37 to 38)	13 (13 to 13)	32 (31 to 32)	2 (2 to 2)	231 (225 to 235)
2020-2039	210 (209 to 211)	44 (42 to 45)	17 (17 to 17)	51 (50 to 51)	2 (2 to 2)	391 (384 to 396)
2040-2059	158 (155 to 162)	49 (46 to 51)	21 (21 to 21)	69 (68 to 69)	3 (3 to 3)	341 (332 to 350)
2060-2079	222 (192 to 252)	NA	NA	NA	NA	NA
2080-2099	351 (327 to 375)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Burnie

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	24 (24 to 24)	NA	NA	NA	NA	NA
1960-1979	20 (19 to 20)	NA	NA	NA	NA	NA
1980-1999	20 (19 to 21)	6 (6 to 6)	3 (3 to 3)	0 (0 to 0)	0 (0 to 0)	34 (32 to 37)
2000-2019	25 (23 to 26)	7 (7 to 7)	3 (3 to 3)	0 (0 to 0)	0 (0 to 0)	41 (38 to 44)
2020-2039	28 (26 to 28)	7 (7 to 7)	4 (4 to 4)	0 (0 to 0)	0 (0 to 0)	45 (42 to 47)
2040-2059	34 (32 to 36)	7 (6 to 7)	4 (4 to 4)	0 (0 to 0)	0 (0 to 0)	51 (47 to 56)
2060-2079	39 (36 to 42)	NA	NA	NA	NA	NA
2080-2099	54 (48 to 59)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	41 (41 to 41)	NA	NA	NA	NA	NA
1960-1979	34 (32 to 34)	NA	NA	NA	NA	NA
1980-1999	34 (33 to 36)	22 (22 to 22)	16 (16 to 16)	2 (2 to 2)	0 (0 to 0)	95 (93 to 100)
2000-2019	43 (40 to 44)	23 (22 to 23)	17 (17 to 17)	2 (2 to 2)	0 (0 to 0)	106 (100 to 109)
2020-2039	47 (44 to 49)	23 (22 to 24)	18 (18 to 18)	2 (2 to 2)	0 (0 to 0)	111 (105 to 117)
2040-2059	58 (56 to 63)	23 (22 to 25)	19 (19 to 19)	3 (2 to 3)	0 (0 to 0)	125 (119 to 135)
2060-2079	67 (61 to 72)	NA	NA	NA	NA	NA
2080-2099	94 (83 to 102)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	97 (97 to 97)	NA	NA	NA	NA	NA
1960-1979	79 (76 to 80)	NA	NA	NA	NA	NA
1980-1999	81 (77 to 85)	26 (26 to 26)	117 (117 to 117)	47 (44 to 49)	0 (0 to 0)	298 (289 to 307)
2000-2019	100 (94 to 104)	27 (26 to 27)	124 (124 to 124)	53 (50 to 55)	0 (0 to 0)	330 (318 to 338)
2020-2039	112 (104 to 115)	27 (26 to 29)	135 (135 to 135)	61 (57 to 63)	0 (0 to 0)	362 (346 to 372)
2040-2059	137 (131 to 149)	27 (26 to 30)	143 (143 to 143)	67 (63 to 69)	0 (0 to 0)	401 (388 to 422)
2060-2079	160 (145 to 171)	NA	NA	NA	NA	NA
2080-2099	223 (195 to 241)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Central Coast

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	13 (13 to 13)	NA	NA	NA	NA	NA
1960-1979	10 (10 to 11)	NA	NA	NA	NA	NA
1980-1999	10 (10 to 11)	22 (22 to 22)	0 (0 to 0)	3 (3 to 4)	0 (0 to 0)	37 (36 to 41)
2000-2019	13 (11 to 14)	23 (23 to 24)	0 (0 to 0)	4 (4 to 4)	0 (0 to 0)	43 (40 to 47)
2020-2039	14 (13 to 16)	25 (23 to 26)	0 (0 to 0)	5 (5 to 5)	0 (0 to 0)	47 (43 to 52)
2040-2059	18 (16 to 21)	25 (23 to 28)	0 (0 to 0)	6 (5 to 6)	0 (0 to 0)	52 (46 to 61)
2060-2079	21 (19 to 26)	NA	NA	NA	NA	NA
2080-2099	31 (26 to 47)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	38 (38 to 38)	NA	NA	NA	NA	NA
1960-1979	31 (30 to 33)	NA	NA	NA	NA	NA
1980-1999	30 (29 to 32)	61 (61 to 61)	0 (0 to 0)	35 (31 to 39)	1 (1 to 2)	129 (123 to 138)
2000-2019	38 (32 to 43)	65 (64 to 67)	0 (0 to 0)	42 (37 to 47)	2 (1 to 2)	150 (136 to 164)
2020-2039	43 (40 to 47)	69 (65 to 73)	0 (0 to 0)	52 (47 to 56)	2 (2 to 2)	169 (156 to 183)
2040-2059	53 (48 to 62)	71 (64 to 78)	0 (0 to 0)	60 (57 to 64)	2 (2 to 2)	189 (173 to 212)
2060-2079	62 (56 to 80)	NA	NA	NA	NA	NA
2080-2099	93 (79 to 144)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	84 (84 to 84)	NA	NA	NA	NA	NA
1960-1979	68 (65 to 73)	NA	NA	NA	NA	NA
1980-1999	67 (64 to 71)	105 (105 to 106)	161 (161 to 161)	136 (120 to 150)	4 (4 to 4)	505 (484 to 527)
2000-2019	83 (70 to 94)	113 (110 to 116)	182 (182 to 182)	164 (143 to 182)	5 (4 to 5)	578 (538 to 613)
2020-2039	95 (89 to 105)	119 (112 to 127)	212 (212 to 212)	202 (184 to 220)	6 (5 to 6)	665 (631 to 706)
2040-2059	118 (106 to 138)	123 (111 to 136)	238 (238 to 238)	235 (222 to 252)	6 (6 to 7)	753 (713 to 808)
2060-2079	138 (124 to 177)	NA	NA	NA	NA	NA
2080-2099	207 (174 to 319)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

Central Highlands

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	35 (35 to 35)	NA	NA	NA	NA	NA
1960-1979	30 (27 to 34)	NA	NA	NA	NA	NA
1980-1999	32 (26 to 50)	189 (188 to 189)	6 (6 to 6)	80 (66 to 107)	11 (9 to 15)	321 (296 to 372)
2000-2019	40 (34 to 50)	193 (188 to 198)	7 (7 to 7)	95 (81 to 117)	13 (11 to 16)	351 (323 to 393)
2020-2039	65 (45 to 143)	189 (178 to 201)	8 (8 to 8)	128 (103 to 213)	18 (14 to 29)	411 (350 to 599)
2040-2059	62 (50 to 79)	186 (170 to 207)	8 (8 to 8)	156 (117 to 303)	21 (16 to 41)	436 (363 to 644)
2060-2079	96 (68 to 185)	NA	NA	NA	NA	NA
2080-2099	123 (88 to 166)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	56 (56 to 56)	NA	NA	NA	NA	NA
1960-1979	48 (43 to 54)	NA	NA	NA	NA	NA
1980-1999	52 (42 to 81)	249 (248 to 250)	22 (22 to 22)	221 (185 to 298)	23 (19 to 31)	575 (521 to 694)
2000-2019	64 (54 to 81)	256 (249 to 261)	25 (25 to 25)	264 (227 to 327)	27 (24 to 34)	643 (584 to 738)
2020-2039	105 (73 to 232)	249 (235 to 266)	28 (28 to 28)	358 (286 to 594)	37 (30 to 61)	786 (658 to 1201)
2040-2059	101 (81 to 128)	247 (224 to 274)	29 (29 to 29)	434 (326 to 848)	45 (34 to 87)	863 (700 to 1378)
2060-2079	156 (111 to 300)	NA	NA	NA	NA	NA
2080-2099	200 (142 to 269)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	371 (371 to 371)	NA	NA	NA	NA	NA
1960-1979	315 (282 to 360)	NA	NA	NA	NA	NA
1980-1999	341 (275 to 538)	386 (384 to 387)	60 (60 to 60)	450 (375 to 606)	36 (30 to 48)	1614 (1450 to 1994)
2000-2019	427 (360 to 534)	396 (385 to 405)	68 (68 to 68)	536 (460 to 665)	43 (37 to 53)	1827 (1654 to 2096)
2020-2039	697 (482 to 1542)	386 (364 to 412)	76 (76 to 76)	728 (581 to 1207)	58 (46 to 96)	2329 (1898 to 3767)
2040-2059	671 (534 to 849)	382 (347 to 424)	79 (79 to 79)	883 (662 to 1724)	70 (53 to 136)	2513 (2055 to 3706)
2060-2079	1034 (734 to 1997)	NA	NA	NA	NA	NA
2080-2099	1331 (945 to 1786)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Circular Head

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	66 (66 to 66)	NA	NA	NA	NA	NA
1960-1979	55 (52 to 57)	NA	NA	NA	NA	NA
1980-1999	55 (50 to 63)	163 (163 to 164)	0 (0 to 0)	117 (97 to 133)	0 (0 to 0)	337 (311 to 364)
2000-2019	69 (55 to 79)	167 (164 to 170)	0 (0 to 0)	128 (104 to 146)	0 (0 to 0)	367 (325 to 400)
2020-2039	84 (76 to 99)	164 (159 to 170)	0 (0 to 0)	143 (122 to 165)	0 (0 to 0)	394 (359 to 439)
2040-2059	106 (93 to 131)	161 (153 to 170)	0 (0 to 0)	155 (138 to 181)	0 (0 to 0)	425 (386 to 488)
2060-2079	125 (95 to 164)	NA	NA	NA	NA	NA
2080-2099	185 (153 to 307)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	100 (100 to 100)	NA	NA	NA	NA	NA
1960-1979	83 (78 to 87)	NA	NA	NA	NA	NA
1980-1999	84 (75 to 95)	197 (197 to 198)	5 (5 to 5)	147 (122 to 167)	0 (0 to 0)	443 (408 to 478)
2000-2019	105 (84 to 120)	202 (199 to 205)	5 (5 to 5)	161 (130 to 183)	0 (0 to 0)	484 (427 to 526)
2020-2039	127 (115 to 150)	198 (192 to 206)	5 (5 to 5)	179 (153 to 207)	0 (0 to 0)	520 (474 to 582)
2040-2059	161 (142 to 200)	194 (185 to 205)	5 (5 to 5)	194 (173 to 227)	0 (0 to 0)	565 (514 to 652)
2060-2079	190 (144 to 250)	NA	NA	NA	NA	NA
2080-2099	282 (233 to 469)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	176 (176 to 176)	NA	NA	NA	NA	NA
1960-1979	146 (137 to 153)	NA	NA	NA	NA	NA
1980-1999	148 (132 to 167)	236 (235 to 237)	32 (32 to 32)	168 (139 to 191)	3 (2 to 3)	633 (583 to 680)
2000-2019	185 (148 to 211)	241 (237 to 245)	33 (33 to 33)	183 (148 to 209)	3 (2 to 3)	688 (608 to 749)
2020-2039	223 (202 to 264)	237 (230 to 246)	33 (33 to 33)	204 (175 to 237)	3 (3 to 4)	746 (682 to 835)
2040-2059	283 (249 to 351)	232 (221 to 245)	33 (33 to 33)	221 (198 to 259)	3 (3 to 4)	819 (744 to 945)
2060-2079	334 (253 to 439)	NA	NA	NA	NA	NA
2080-2099	495 (409 to 823)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Clarence

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	40 (40 to 40)	NA	NA	NA	NA	NA
1960-1979	35 (31 to 38)	NA	NA	NA	NA	NA
1980-1999	42 (36 to 46)	0 (0 to 0)	0 (0 to 0)	7 (7 to 8)	0 (0 to 0)	63 (54 to 70)
2000-2019	48 (46 to 50)	0 (0 to 0)	0 (0 to 0)	9 (8 to 9)	0 (0 to 0)	70 (65 to 74)
2020-2039	62 (50 to 74)	0 (0 to 0)	0 (0 to 0)	11 (10 to 12)	0 (0 to 0)	88 (70 to 106)
2040-2059	74 (66 to 84)	0 (0 to 0)	0 (0 to 0)	13 (12 to 15)	0 (0 to 0)	100 (90 to 115)
2060-2079	113 (87 to 142)	NA	NA	NA	NA	NA
2080-2099	130 (110 to 157)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	62 (62 to 62)	NA	NA	NA	NA	NA
1960-1979	54 (47 to 59)	NA	NA	NA	NA	NA
1980-1999	63 (55 to 71)	6 (6 to 6)	12 (12 to 12)	17 (16 to 18)	0 (0 to 0)	120 (108 to 132)
2000-2019	74 (70 to 76)	7 (7 to 7)	14 (14 to 14)	20 (19 to 21)	0 (0 to 0)	136 (128 to 142)
2020-2039	94 (77 to 112)	7 (7 to 8)	17 (17 to 17)	26 (24 to 28)	0 (0 to 0)	168 (142 to 197)
2040-2059	112 (101 to 129)	8 (7 to 8)	20 (20 to 20)	31 (28 to 35)	0 (0 to 0)	192 (175 to 217)
2060-2079	172 (133 to 217)	NA	NA	NA	NA	NA
2080-2099	198 (167 to 240)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	98 (98 to 98)	NA	NA	NA	NA	NA
1960-1979	85 (74 to 93)	NA	NA	NA	NA	NA
1980-1999	101 (87 to 112)	20 (20 to 20)	26 (26 to 26)	33 (31 to 35)	2 (2 to 2)	254 (231 to 273)
2000-2019	117 (111 to 121)	21 (21 to 22)	31 (31 to 31)	40 (38 to 41)	2 (2 to 2)	277 (263 to 288)
2020-2039	149 (122 to 178)	23 (22 to 24)	38 (38 to 38)	52 (47 to 56)	2 (2 to 2)	343 (285 to 398)
2040-2059	178 (161 to 205)	24 (22 to 27)	43 (43 to 43)	62 (55 to 70)	3 (2 to 3)	379 (346 to 423)
2060-2079	274 (211 to 346)	NA	NA	NA	NA	NA
2080-2099	315 (266 to 382)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Derwent Valley

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	9 (9 to 9)	NA	NA	NA	NA	NA
1960-1979	7 (7 to 9)	NA	NA	NA	NA	NA
1980-1999	8 (7 to 9)	73 (73 to 74)	0 (0 to 0)	2 (1 to 2)	0 (0 to 0)	85 (82 to 90)
2000-2019	9 (8 to 10)	77 (75 to 79)	0 (0 to 0)	2 (2 to 2)	0 (0 to 0)	91 (87 to 96)
2020-2039	13 (10 to 20)	79 (75 to 84)	0 (0 to 0)	2 (2 to 2)	0 (0 to 0)	97 (89 to 111)
2040-2059	15 (14 to 19)	80 (74 to 88)	0 (0 to 0)	2 (2 to 3)	0 (0 to 0)	100 (92 to 116)
2060-2079	19 (17 to 26)	NA	NA	NA	NA	NA
2080-2099	29 (25 to 43)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	28 (28 to 28)	NA	NA	NA	NA	NA
1960-1979	24 (22 to 30)	NA	NA	NA	NA	NA
1980-1999	26 (24 to 28)	188 (187 to 188)	27 (27 to 27)	39 (36 to 44)	5 (5 to 6)	287 (280 to 298)
2000-2019	30 (27 to 34)	198 (193 to 203)	29 (29 to 29)	45 (41 to 50)	6 (5 to 6)	311 (297 to 327)
2020-2039	42 (32 to 66)	203 (193 to 216)	32 (32 to 32)	57 (48 to 74)	7 (6 to 9)	344 (313 to 402)
2040-2059	49 (46 to 63)	204 (189 to 226)	35 (35 to 35)	68 (55 to 97)	8 (7 to 12)	367 (334 to 439)
2060-2079	65 (57 to 86)	NA	NA	NA	NA	NA
2080-2099	95 (83 to 142)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	49 (49 to 49)	NA	NA	NA	NA	NA
1960-1979	42 (38 to 52)	NA	NA	NA	NA	NA
1980-1999	45 (42 to 50)	308 (307 to 309)	246 (246 to 246)	214 (196 to 240)	10 (9 to 11)	854 (830 to 890)
2000-2019	53 (48 to 60)	324 (317 to 332)	269 (269 to 269)	245 (224 to 274)	12 (11 to 13)	936 (900 to 984)
2020-2039	75 (56 to 117)	332 (316 to 354)	298 (298 to 298)	313 (265 to 407)	15 (12 to 19)	1068 (979 to 1235)
2040-2059	87 (81 to 111)	335 (310 to 371)	322 (322 to 322)	375 (300 to 534)	17 (14 to 25)	1177 (1061 to 1409)
2060-2079	115 (102 to 153)	NA	NA	NA	NA	NA
2080-2099	169 (147 to 253)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Devonport

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	62 (62 to 62)	NA	NA	NA	NA	NA
1960-1979	49 (49 to 49)	NA	NA	NA	NA	NA
1980-1999	55 (55 to 55)	44 (44 to 44)	0 (0 to 0)	6 (6 to 6)	0 (0 to 0)	116 (115 to 118)
2000-2019	49 (49 to 49)	47 (46 to 47)	0 (0 to 0)	7 (7 to 7)	0 (0 to 0)	114 (112 to 116)
2020-2039	76 (76 to 76)	49 (47 to 51)	0 (0 to 0)	9 (9 to 9)	0 (0 to 0)	146 (143 to 150)
2040-2059	85 (85 to 85)	51 (48 to 54)	0 (0 to 0)	11 (11 to 11)	0 (0 to 0)	160 (156 to 165)
2060-2079	109 (109 to 109)	NA	NA	NA	NA	NA
2080-2099	163 (163 to 163)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	152 (152 to 152)	NA	NA	NA	NA	NA
1960-1979	120 (120 to 120)	NA	NA	NA	NA	NA
1980-1999	136 (136 to 136)	114 (114 to 114)	26 (26 to 26)	50 (50 to 50)	0 (0 to 0)	347 (346 to 349)
2000-2019	120 (120 to 120)	121 (119 to 122)	28 (28 to 28)	54 (54 to 54)	0 (0 to 0)	344 (341 to 347)
2020-2039	186 (186 to 186)	126 (121 to 131)	32 (32 to 32)	73 (73 to 73)	0 (0 to 0)	440 (434 to 447)
2040-2059	209 (209 to 209)	130 (123 to 139)	35 (35 to 35)	92 (92 to 92)	0 (0 to 0)	490 (482 to 501)
2060-2079	268 (268 to 268)	NA	NA	NA	NA	NA
2080-2099	401 (401 to 401)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	214 (214 to 214)	NA	NA	NA	NA	NA
1960-1979	169 (169 to 169)	NA	NA	NA	NA	NA
1980-1999	190 (190 to 190)	196 (196 to 196)	87 (87 to 87)	123 (123 to 123)	1 (1 to 1)	669 (668 to 671)
2000-2019	169 (169 to 169)	207 (204 to 210)	96 (96 to 96)	134 (134 to 134)	1 (1 to 1)	674 (670 to 679)
2020-2039	260 (260 to 260)	216 (209 to 224)	109 (109 to 109)	183 (183 to 183)	1 (1 to 1)	846 (838 to 856)
2040-2059	292 (292 to 292)	224 (211 to 238)	121 (121 to 121)	230 (230 to 230)	1 (1 to 1)	946 (932 to 962)
2060-2079	376 (376 to 376)	NA	NA	NA	NA	NA
2080-2099	563 (563 to 563)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Dorset

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	12 (12 to 12)	NA	NA	NA	NA	NA
1960-1979	10 (9 to 11)	NA	NA	NA	NA	NA
1980-1999	11 (10 to 12)	78 (78 to 78)	24 (24 to 24)	19 (17 to 22)	2 (2 to 2)	137 (133 to 143)
2000-2019	14 (12 to 16)	80 (78 to 82)	26 (26 to 26)	21 (19 to 25)	2 (2 to 2)	146 (139 to 156)
2020-2039	21 (16 to 31)	77 (73 to 82)	26 (26 to 26)	27 (22 to 35)	3 (2 to 3)	157 (141 to 182)
2040-2059	24 (21 to 33)	73 (68 to 82)	26 (26 to 26)	32 (24 to 45)	3 (2 to 4)	161 (143 to 195)
2060-2079	27 (22 to 48)	NA	NA	NA	NA	NA
2080-2099	44 (37 to 86)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	23 (23 to 23)	NA	NA	NA	NA	NA
1960-1979	19 (17 to 21)	NA	NA	NA	NA	NA
1980-1999	20 (19 to 24)	126 (126 to 127)	47 (47 to 47)	39 (34 to 45)	2 (2 to 2)	242 (235 to 256)
2000-2019	26 (23 to 31)	129 (126 to 133)	50 (50 to 50)	43 (38 to 50)	2 (2 to 3)	258 (246 to 278)
2020-2039	41 (31 to 60)	124 (118 to 133)	50 (50 to 50)	55 (44 to 72)	3 (2 to 3)	283 (252 to 332)
2040-2059	47 (41 to 64)	119 (111 to 133)	50 (50 to 50)	65 (49 to 92)	3 (2 to 4)	293 (260 to 354)
2060-2079	53 (43 to 93)	NA	NA	NA	NA	NA
2080-2099	86 (72 to 168)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	96 (96 to 96)	NA	NA	NA	NA	NA
1960-1979	77 (70 to 88)	NA	NA	NA	NA	NA
1980-1999	85 (77 to 100)	144 (143 to 144)	75 (75 to 75)	70 (62 to 82)	5 (4 to 5)	395 (376 to 426)
2000-2019	111 (96 to 129)	147 (143 to 151)	79 (79 to 79)	79 (69 to 91)	5 (5 to 6)	436 (406 to 476)
2020-2039	174 (129 to 253)	142 (135 to 152)	79 (79 to 79)	99 (80 to 130)	6 (5 to 8)	520 (443 to 652)
2040-2059	199 (173 to 270)	135 (126 to 152)	79 (79 to 79)	118 (89 to 167)	7 (6 to 10)	556 (489 to 700)
2060-2079	223 (179 to 392)	NA	NA	NA	NA	NA
2080-2099	364 (303 to 712)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Flinders

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	0 (0 to 0)	NA	NA	NA	NA	NA
1960-1979	0 (0 to 0)	NA	NA	NA	NA	NA
1980-1999	0 (0 to 0)	14 (14 to 14)	7 (7 to 7)	19 (16 to 23)	0 (0 to 0)	43 (39 to 49)
2000-2019	0 (0 to 0)	14 (14 to 14)	7 (7 to 7)	22 (18 to 27)	0 (0 to 0)	46 (41 to 53)
2020-2039	0 (0 to 0)	14 (12 to 14)	7 (7 to 7)	26 (20 to 36)	0 (0 to 0)	50 (41 to 62)
2040-2059	0 (0 to 0)	13 (11 to 14)	7 (7 to 7)	30 (21 to 43)	0 (0 to 0)	53 (41 to 69)
2060-2079	0 (0 to 0)	NA	NA	NA	NA	NA
2080-2099	0 (0 to 0)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	4 (4 to 4)	NA	NA	NA	NA	NA
1960-1979	4 (4 to 4)	NA	NA	NA	NA	NA
1980-1999	4 (4 to 5)	33 (32 to 33)	27 (27 to 27)	32 (27 to 39)	2 (1 to 2)	101 (93 to 111)
2000-2019	6 (5 to 7)	32 (31 to 33)	30 (30 to 30)	38 (31 to 46)	2 (2 to 2)	111 (101 to 123)
2020-2039	8 (5 to 11)	31 (28 to 33)	30 (30 to 30)	45 (33 to 60)	2 (2 to 3)	119 (100 to 142)
2040-2059	12 (6 to 17)	29 (25 to 31)	30 (30 to 30)	51 (35 to 74)	2 (2 to 3)	127 (100 to 160)
2060-2079	13 (10 to 24)	NA	NA	NA	NA	NA
2080-2099	18 (13 to 36)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	7 (7 to 7)	NA	NA	NA	NA	NA
1960-1979	7 (7 to 7)	NA	NA	NA	NA	NA
1980-1999	7 (6 to 8)	95 (95 to 96)	45 (45 to 45)	43 (36 to 52)	6 (5 to 7)	199 (189 to 213)
2000-2019	9 (8 to 12)	94 (91 to 96)	50 (50 to 50)	51 (42 to 62)	7 (6 to 9)	214 (199 to 234)
2020-2039	13 (8 to 19)	91 (83 to 96)	50 (50 to 50)	60 (45 to 82)	9 (6 to 11)	226 (194 to 263)
2040-2059	20 (11 to 29)	84 (72 to 91)	51 (51 to 51)	69 (47 to 99)	10 (7 to 14)	237 (190 to 289)
2060-2079	23 (17 to 42)	NA	NA	NA	NA	NA
2080-2099	32 (23 to 62)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

George Town

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	42 (42 to 42)	NA	NA	NA	NA	NA
1960-1979	33 (30 to 37)	NA	NA	NA	NA	NA
1980-1999	38 (33 to 43)	53 (53 to 53)	4 (4 to 4)	24 (22 to 27)	0 (0 to 0)	122 (114 to 132)
2000-2019	43 (41 to 47)	55 (53 to 57)	5 (5 to 5)	28 (26 to 30)	0 (0 to 0)	134 (127 to 144)
2020-2039	70 (64 to 82)	54 (51 to 60)	5 (5 to 5)	37 (35 to 41)	0 (0 to 0)	169 (157 to 193)
2040-2059	87 (75 to 108)	53 (49 to 62)	6 (6 to 6)	46 (42 to 52)	0 (0 to 0)	195 (174 to 233)
2060-2079	104 (76 to 199)	NA	NA	NA	NA	NA
2080-2099	189 (132 to 340)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	46 (46 to 46)	NA	NA	NA	NA	NA
1960-1979	36 (32 to 40)	NA	NA	NA	NA	NA
1980-1999	41 (36 to 47)	93 (93 to 94)	13 (13 to 13)	86 (78 to 94)	1 (1 to 1)	240 (226 to 257)
2000-2019	47 (44 to 51)	97 (93 to 101)	15 (15 to 15)	98 (91 to 105)	1 (1 to 1)	264 (249 to 281)
2020-2039	76 (70 to 89)	96 (90 to 106)	16 (16 to 16)	132 (123 to 146)	2 (1 to 2)	328 (305 to 367)
2040-2059	95 (82 to 118)	94 (86 to 110)	17 (17 to 17)	162 (150 to 184)	2 (2 to 2)	376 (342 to 440)
2060-2079	113 (83 to 217)	NA	NA	NA	NA	NA
2080-2099	206 (144 to 370)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	60 (60 to 60)	NA	NA	NA	NA	NA
1960-1979	46 (42 to 52)	NA	NA	NA	NA	NA
1980-1999	54 (47 to 61)	140 (139 to 141)	38 (38 to 38)	98 (90 to 108)	5 (4 to 5)	350 (332 to 370)
2000-2019	61 (57 to 66)	145 (140 to 151)	41 (41 to 41)	112 (105 to 120)	5 (5 to 6)	379 (362 to 402)
2020-2039	99 (90 to 116)	144 (135 to 159)	46 (46 to 46)	151 (141 to 168)	7 (6 to 8)	463 (433 to 515)
2040-2059	124 (106 to 153)	141 (129 to 165)	48 (48 to 48)	186 (172 to 211)	8 (8 to 10)	524 (478 to 606)
2060-2079	147 (108 to 282)	NA	NA	NA	NA	NA
2080-2099	268 (187 to 482)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Glamorgan/Spring Bay

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	35 (35 to 35)	NA	NA	NA	NA	NA
1960-1979	28 (26 to 33)	NA	NA	NA	NA	NA
1980-1999	38 (34 to 43)	36 (36 to 36)	1 (1 to 1)	23 (20 to 26)	11 (10 to 12)	112 (103 to 123)
2000-2019	39 (33 to 45)	36 (36 to 38)	2 (2 to 2)	26 (22 to 29)	12 (11 to 14)	118 (105 to 133)
2020-2039	51 (41 to 65)	35 (35 to 39)	2 (2 to 2)	30 (26 to 36)	15 (12 to 17)	136 (118 to 164)
2040-2059	55 (43 to 67)	32 (32 to 40)	2 (2 to 2)	34 (28 to 42)	16 (14 to 20)	142 (121 to 176)
2060-2079	81 (67 to 92)	NA	NA	NA	NA	NA
2080-2099	87 (69 to 112)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	49 (49 to 49)	NA	NA	NA	NA	NA
1960-1979	40 (36 to 47)	NA	NA	NA	NA	NA
1980-1999	54 (48 to 60)	65 (65 to 65)	7 (7 to 7)	60 (51 to 68)	16 (14 to 18)	221 (201 to 240)
2000-2019	56 (47 to 64)	66 (66 to 69)	8 (8 to 8)	66 (57 to 75)	18 (15 to 20)	230 (206 to 256)
2020-2039	73 (58 to 93)	64 (64 to 72)	9 (9 to 9)	79 (67 to 94)	21 (18 to 25)	265 (230 to 319)
2040-2059	78 (61 to 96)	58 (58 to 73)	9 (9 to 9)	90 (74 to 110)	24 (20 to 29)	275 (235 to 339)
2060-2079	115 (95 to 131)	NA	NA	NA	NA	NA
2080-2099	124 (98 to 159)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	62 (62 to 62)	NA	NA	NA	NA	NA
1960-1979	50 (45 to 59)	NA	NA	NA	NA	NA
1980-1999	68 (61 to 76)	74 (74 to 74)	53 (53 to 53)	74 (64 to 84)	32 (28 to 37)	366 (339 to 395)
2000-2019	70 (59 to 80)	75 (75 to 79)	59 (59 to 59)	83 (71 to 94)	36 (31 to 41)	379 (342 to 418)
2020-2039	91 (72 to 116)	73 (73 to 82)	64 (64 to 64)	99 (83 to 117)	43 (36 to 51)	436 (378 to 512)
2040-2059	98 (76 to 120)	67 (67 to 83)	66 (66 to 66)	112 (92 to 137)	49 (40 to 59)	449 (388 to 535)
2060-2079	144 (119 to 164)	NA	NA	NA	NA	NA
2080-2099	155 (123 to 200)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Glenorchy

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	9 (9 to 9)	NA	NA	NA	NA	NA
1960-1979	9 (9 to 9)	NA	NA	NA	NA	NA
1980-1999	8 (8 to 8)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	11 (10 to 13)
2000-2019	11 (11 to 11)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	14 (13 to 16)
2020-2039	13 (13 to 13)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	16 (15 to 18)
2040-2059	16 (16 to 16)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	0 (0 to 0)	19 (18 to 21)
2060-2079	20 (20 to 20)	NA	NA	NA	NA	NA
2080-2099	26 (26 to 26)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	31 (31 to 31)	NA	NA	NA	NA	NA
1960-1979	31 (31 to 31)	NA	NA	NA	NA	NA
1980-1999	28 (28 to 28)	12 (12 to 12)	0 (0 to 0)	6 (6 to 6)	0 (0 to 0)	49 (48 to 51)
2000-2019	37 (37 to 37)	13 (13 to 13)	0 (0 to 0)	7 (7 to 7)	0 (0 to 0)	60 (59 to 62)
2020-2039	44 (44 to 44)	14 (13 to 14)	0 (0 to 0)	8 (8 to 8)	0 (0 to 0)	69 (67 to 71)
2040-2059	55 (55 to 55)	14 (14 to 15)	0 (0 to 0)	10 (10 to 10)	0 (0 to 0)	82 (81 to 85)
2060-2079	70 (70 to 70)	NA	NA	NA	NA	NA
2080-2099	92 (92 to 92)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	84 (84 to 84)	NA	NA	NA	NA	NA
1960-1979	83 (83 to 83)	NA	NA	NA	NA	NA
1980-1999	75 (75 to 75)	16 (16 to 16)	2 (2 to 2)	56 (56 to 56)	1 (1 to 1)	170 (169 to 172)
2000-2019	100 (100 to 100)	16 (16 to 17)	2 (2 to 2)	66 (66 to 66)	1 (1 to 1)	206 (205 to 209)
2020-2039	117 (117 to 117)	17 (17 to 18)	2 (2 to 2)	81 (81 to 81)	1 (1 to 1)	240 (239 to 243)
2040-2059	147 (147 to 147)	18 (17 to 19)	2 (2 to 2)	94 (94 to 94)	2 (2 to 2)	285 (283 to 289)
2060-2079	190 (190 to 190)	NA	NA	NA	NA	NA
2080-2099	247 (247 to 247)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Hobart

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	51 (51 to 51)	NA	NA	NA	NA	NA
1960-1979	46 (45 to 46)	NA	NA	NA	NA	NA
1980-1999	47 (46 to 49)	2 (2 to 2)	0 (0 to 0)	5 (4 to 5)	0 (0 to 0)	79 (76 to 83)
2000-2019	54 (54 to 55)	2 (2 to 2)	0 (0 to 0)	5 (5 to 5)	0 (0 to 0)	85 (84 to 88)
2020-2039	62 (62 to 62)	2 (2 to 2)	0 (0 to 0)	6 (6 to 6)	0 (0 to 0)	94 (92 to 96)
2040-2059	86 (82 to 90)	2 (2 to 2)	0 (0 to 0)	7 (7 to 7)	0 (0 to 0)	119 (114 to 125)
2060-2079	110 (105 to 115)	NA	NA	NA	NA	NA
2080-2099	142 (126 to 157)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	181 (181 to 181)	NA	NA	NA	NA	NA
1960-1979	161 (159 to 161)	NA	NA	NA	NA	NA
1980-1999	166 (163 to 172)	4 (4 to 4)	3 (3 to 3)	12 (11 to 12)	1 (1 to 1)	220 (215 to 229)
2000-2019	190 (188 to 193)	4 (4 to 4)	4 (4 to 4)	14 (14 to 14)	1 (1 to 1)	246 (243 to 251)
2020-2039	217 (217 to 217)	4 (4 to 5)	5 (5 to 5)	17 (17 to 17)	2 (2 to 2)	278 (276 to 281)
2040-2059	301 (287 to 318)	4 (4 to 5)	5 (5 to 5)	20 (19 to 20)	2 (2 to 2)	365 (349 to 385)
2060-2079	388 (370 to 406)	NA	NA	NA	NA	NA
2080-2099	499 (445 to 552)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	370 (370 to 370)	NA	NA	NA	NA	NA
1960-1979	329 (325 to 329)	NA	NA	NA	NA	NA
1980-1999	340 (333 to 351)	22 (22 to 22)	329 (329 to 329)	215 (212 to 220)	3 (3 to 3)	1022 (1011 to 1041)
2000-2019	388 (385 to 396)	23 (23 to 24)	376 (376 to 376)	254 (252 to 259)	3 (3 to 3)	1153 (1146 to 1170)
2020-2039	444 (444 to 444)	24 (23 to 26)	447 (447 to 447)	316 (315 to 318)	4 (4 to 4)	1343 (1337 to 1351)
2040-2059	617 (588 to 650)	25 (22 to 28)	505 (505 to 505)	367 (367 to 368)	4 (4 to 4)	1627 (1594 to 1666)
2060-2079	794 (758 to 831)	NA	NA	NA	NA	NA
2080-2099	1023 (913 to 1131)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Huon Valley

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	38 (38 to 38)	NA	NA	NA	NA	NA
1960-1979	33 (31 to 35)	NA	NA	NA	NA	NA
1980-1999	33 (27 to 37)	146 (145 to 147)	0 (0 to 0)	61 (49 to 72)	13 (11 to 16)	255 (233 to 277)
2000-2019	36 (28 to 45)	166 (159 to 173)	0 (0 to 0)	80 (67 to 95)	17 (15 to 20)	302 (271 to 338)
2020-2039	49 (39 to 59)	186 (168 to 205)	0 (0 to 0)	115 (100 to 130)	25 (21 to 28)	378 (330 to 427)
2040-2059	64 (51 to 88)	201 (171 to 232)	0 (0 to 0)	145 (129 to 161)	31 (28 to 34)	444 (381 to 521)
2060-2079	79 (68 to 96)	NA	NA	NA	NA	NA
2080-2099	113 (77 to 133)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	88 (88 to 88)	NA	NA	NA	NA	NA
1960-1979	75 (71 to 81)	NA	NA	NA	NA	NA
1980-1999	76 (63 to 86)	193 (192 to 195)	205 (205 to 205)	103 (83 to 123)	17 (14 to 21)	629 (590 to 672)
2000-2019	84 (66 to 104)	219 (210 to 229)	261 (261 to 261)	136 (114 to 160)	23 (19 to 27)	759 (701 to 826)
2020-2039	113 (90 to 136)	246 (222 to 271)	339 (339 to 339)	195 (169 to 221)	32 (28 to 37)	965 (880 to 1054)
2040-2059	147 (119 to 205)	265 (226 to 306)	406 (406 to 406)	246 (219 to 274)	41 (36 to 45)	1141 (1038 to 1291)
2060-2079	184 (159 to 224)	NA	NA	NA	NA	NA
2080-2099	263 (178 to 309)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	109 (109 to 109)	NA	NA	NA	NA	NA
1960-1979	93 (87 to 100)	NA	NA	NA	NA	NA
1980-1999	94 (78 to 106)	313 (311 to 315)	444 (444 to 444)	208 (168 to 249)	26 (21 to 31)	1149 (1083 to 1219)
2000-2019	104 (81 to 129)	355 (339 to 370)	565 (565 to 565)	276 (230 to 325)	34 (29 to 40)	1398 (1300 to 1508)
2020-2039	139 (111 to 168)	398 (359 to 438)	734 (734 to 734)	394 (343 to 448)	49 (42 to 55)	1786 (1646 to 1931)
2040-2059	182 (147 to 252)	429 (365 to 495)	879 (879 to 879)	499 (443 to 556)	61 (55 to 68)	2115 (1947 to 2347)
2060-2079	227 (196 to 276)	NA	NA	NA	NA	NA
2080-2099	324 (220 to 381)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Kentish

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	14 (14 to 14)	NA	NA	NA	NA	NA
1960-1979	12 (11 to 12)	NA	NA	NA	NA	NA
1980-1999	12 (11 to 13)	97 (96 to 97)	51 (51 to 51)	23 (20 to 26)	4 (4 to 4)	189 (183 to 195)
2000-2019	16 (14 to 18)	107 (103 to 112)	64 (64 to 64)	31 (27 to 34)	5 (5 to 6)	226 (215 to 239)
2020-2039	18 (16 to 22)	115 (104 to 128)	84 (84 to 84)	41 (38 to 46)	7 (6 to 8)	268 (250 to 293)
2040-2059	22 (19 to 26)	123 (104 to 144)	100 (100 to 100)	50 (47 to 56)	8 (8 to 9)	306 (280 to 341)
2060-2079	25 (21 to 32)	NA	NA	NA	NA	NA
2080-2099	36 (31 to 46)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	27 (27 to 27)	NA	NA	NA	NA	NA
1960-1979	22 (21 to 23)	NA	NA	NA	NA	NA
1980-1999	22 (20 to 24)	130 (129 to 131)	59 (59 to 59)	46 (40 to 50)	4 (4 to 5)	264 (254 to 275)
2000-2019	29 (25 to 33)	144 (138 to 151)	74 (74 to 74)	61 (54 to 67)	6 (5 to 6)	318 (299 to 338)
2020-2039	33 (30 to 41)	155 (140 to 172)	96 (96 to 96)	82 (76 to 91)	8 (7 to 8)	378 (352 to 415)
2040-2059	40 (36 to 48)	166 (140 to 194)	114 (114 to 114)	99 (93 to 111)	9 (9 to 10)	432 (395 to 485)
2060-2079	46 (40 to 60)	NA	NA	NA	NA	NA
2080-2099	68 (58 to 87)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	38 (38 to 38)	NA	NA	NA	NA	NA
1960-1979	31 (30 to 33)	NA	NA	NA	NA	NA
1980-1999	32 (28 to 34)	152 (151 to 153)	63 (63 to 63)	91 (80 to 101)	5 (5 to 6)	352 (335 to 369)
2000-2019	42 (36 to 47)	169 (162 to 176)	80 (80 to 80)	122 (109 to 135)	7 (6 to 7)	430 (401 to 458)
2020-2039	47 (42 to 58)	182 (163 to 202)	104 (104 to 104)	165 (152 to 183)	9 (8 to 10)	517 (477 to 570)
2040-2059	57 (51 to 69)	194 (164 to 227)	123 (123 to 123)	199 (187 to 223)	11 (10 to 12)	594 (544 to 668)
2060-2079	66 (57 to 86)	NA	NA	NA	NA	NA
2080-2099	97 (83 to 124)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

King Island

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	0 (0 to 0)	NA	NA	NA	NA	NA
1960-1979	0 (0 to 0)	NA	NA	NA	NA	NA
1980-1999	0 (0 to 0)	3 (3 to 3)	0 (0 to 0)	3 (2 to 3)	0 (0 to 0)	8 (6 to 11)
2000-2019	0 (0 to 0)	3 (3 to 3)	0 (0 to 0)	3 (3 to 3)	0 (0 to 0)	9 (8 to 11)
2020-2039	0 (0 to 0)	3 (3 to 4)	0 (0 to 0)	4 (3 to 4)	0 (0 to 0)	10 (8 to 13)
2040-2059	0 (0 to 0)	3 (3 to 4)	0 (0 to 0)	4 (4 to 5)	0 (0 to 0)	10 (9 to 14)
2060-2079	0 (0 to 0)	NA	NA	NA	NA	NA
2080-2099	0 (0 to 0)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	0 (0 to 0)	NA	NA	NA	NA	NA
1960-1979	0 (0 to 0)	NA	NA	NA	NA	NA
1980-1999	0 (0 to 0)	30 (30 to 30)	0 (0 to 0)	25 (23 to 27)	0 (0 to 0)	57 (54 to 62)
2000-2019	0 (0 to 0)	30 (29 to 32)	0 (0 to 0)	27 (25 to 30)	0 (0 to 0)	60 (56 to 67)
2020-2039	0 (0 to 0)	29 (27 to 32)	0 (0 to 0)	35 (31 to 40)	0 (0 to 0)	67 (60 to 77)
2040-2059	0 (0 to 0)	28 (25 to 32)	0 (0 to 0)	42 (37 to 48)	0 (0 to 0)	73 (64 to 85)
2060-2079	0 (0 to 0)	NA	NA	NA	NA	NA
2080-2099	0 (0 to 0)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	0 (0 to 0)	NA	NA	NA	NA	NA
1960-1979	0 (0 to 0)	NA	NA	NA	NA	NA
1980-1999	0 (0 to 0)	80 (79 to 81)	4 (4 to 4)	58 (53 to 64)	0 (0 to 0)	144 (137 to 154)
2000-2019	0 (0 to 0)	79 (77 to 84)	5 (5 to 5)	64 (59 to 70)	0 (0 to 0)	151 (143 to 164)
2020-2039	0 (0 to 0)	76 (71 to 86)	5 (5 to 5)	83 (74 to 94)	0 (0 to 0)	167 (152 to 190)
2040-2059	0 (0 to 0)	75 (67 to 86)	5 (5 to 5)	99 (86 to 114)	0 (0 to 0)	182 (160 to 210)
2060-2079	0 (0 to 0)	NA	NA	NA	NA	NA
2080-2099	0 (0 to 0)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Kingborough

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	30 (30 to 30)	NA	NA	NA	NA	NA
1960-1979	27 (26 to 28)	NA	NA	NA	NA	NA
1980-1999	27 (24 to 31)	28 (28 to 29)	0 (0 to 0)	12 (11 to 12)	8 (8 to 9)	83 (78 to 92)
2000-2019	31 (30 to 32)	32 (31 to 33)	0 (0 to 0)	15 (15 to 16)	11 (11 to 11)	97 (94 to 103)
2020-2039	35 (33 to 36)	37 (33 to 41)	0 (0 to 0)	21 (21 to 22)	15 (15 to 15)	116 (108 to 124)
2040-2059	50 (45 to 53)	41 (35 to 47)	0 (0 to 0)	27 (26 to 27)	19 (18 to 19)	145 (130 to 156)
2060-2079	70 (61 to 89)	NA	NA	NA	NA	NA
2080-2099	87 (81 to 94)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	82 (82 to 82)	NA	NA	NA	NA	NA
1960-1979	73 (70 to 74)	NA	NA	NA	NA	NA
1980-1999	74 (65 to 83)	68 (68 to 69)	16 (16 to 16)	21 (20 to 22)	12 (12 to 13)	205 (193 to 220)
2000-2019	83 (80 to 86)	77 (74 to 80)	20 (20 to 20)	28 (27 to 29)	16 (16 to 17)	237 (228 to 248)
2020-2039	94 (87 to 98)	89 (80 to 98)	27 (27 to 27)	39 (38 to 40)	23 (22 to 23)	284 (264 to 301)
2040-2059	135 (121 to 142)	99 (84 to 113)	34 (34 to 34)	49 (48 to 50)	28 (27 to 29)	357 (324 to 383)
2060-2079	188 (164 to 240)	NA	NA	NA	NA	NA
2080-2099	234 (218 to 254)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	186 (186 to 186)	NA	NA	NA	NA	NA
1960-1979	165 (160 to 169)	NA	NA	NA	NA	NA
1980-1999	167 (147 to 189)	77 (76 to 77)	63 (63 to 63)	24 (22 to 25)	14 (13 to 15)	373 (347 to 401)
2000-2019	189 (182 to 197)	87 (83 to 90)	81 (81 to 81)	31 (30 to 32)	19 (18 to 20)	433 (417 to 451)
2020-2039	214 (199 to 223)	101 (90 to 110)	110 (110 to 110)	44 (43 to 45)	26 (26 to 27)	519 (488 to 543)
2040-2059	308 (275 to 323)	112 (95 to 127)	136 (136 to 136)	55 (53 to 56)	33 (32 to 34)	669 (613 to 704)
2060-2079	428 (373 to 547)	NA	NA	NA	NA	NA
2080-2099	534 (497 to 578)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Latrobe

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	15 (15 to 15)	NA	NA	NA	NA	NA
1960-1979	12 (11 to 13)	NA	NA	NA	NA	NA
1980-1999	14 (12 to 15)	6 (6 to 6)	3 (3 to 3)	6 (5 to 6)	0 (0 to 0)	31 (27 to 35)
2000-2019	14 (12 to 15)	7 (6 to 7)	4 (4 to 4)	8 (7 to 9)	0 (0 to 0)	36 (31 to 40)
2020-2039	21 (19 to 22)	8 (7 to 9)	6 (6 to 6)	13 (12 to 13)	0 (0 to 0)	51 (46 to 55)
2040-2059	22 (20 to 25)	9 (7 to 10)	8 (8 to 8)	17 (16 to 18)	0 (0 to 0)	59 (53 to 66)
2060-2079	26 (23 to 30)	NA	NA	NA	NA	NA
2080-2099	45 (39 to 55)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	24 (24 to 24)	NA	NA	NA	NA	NA
1960-1979	20 (19 to 22)	NA	NA	NA	NA	NA
1980-1999	24 (20 to 26)	31 (30 to 31)	9 (9 to 9)	10 (8 to 10)	0 (0 to 0)	80 (71 to 85)
2000-2019	24 (19 to 26)	36 (33 to 38)	12 (12 to 12)	14 (12 to 14)	0 (0 to 0)	92 (81 to 98)
2020-2039	35 (32 to 38)	43 (36 to 48)	18 (18 to 18)	22 (20 to 23)	0 (0 to 0)	125 (112 to 136)
2040-2059	38 (33 to 43)	49 (38 to 57)	23 (23 to 23)	29 (28 to 30)	0 (0 to 0)	146 (128 to 162)
2060-2079	44 (38 to 51)	NA	NA	NA	NA	NA
2080-2099	76 (66 to 93)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	52 (52 to 52)	NA	NA	NA	NA	NA
1960-1979	42 (40 to 46)	NA	NA	NA	NA	NA
1980-1999	50 (42 to 55)	49 (49 to 49)	60 (60 to 60)	32 (27 to 35)	2 (2 to 2)	221 (205 to 234)
2000-2019	49 (41 to 55)	57 (54 to 60)	85 (85 to 85)	46 (41 to 49)	2 (2 to 2)	265 (247 to 280)
2020-2039	73 (67 to 80)	68 (58 to 77)	124 (124 to 124)	74 (69 to 77)	3 (3 to 3)	374 (351 to 398)
2040-2059	80 (70 to 90)	78 (61 to 92)	160 (160 to 160)	100 (95 to 104)	4 (4 to 4)	453 (418 to 485)
2060-2079	93 (81 to 107)	NA	NA	NA	NA	NA
2080-2099	160 (140 to 198)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Launceston

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	51 (51 to 51)	NA	NA	NA	NA	NA
1960-1979	40 (38 to 42)	NA	NA	NA	NA	NA
1980-1999	52 (48 to 61)	15 (15 to 15)	3 (3 to 3)	26 (22 to 30)	0 (0 to 0)	111 (101 to 128)
2000-2019	60 (49 to 70)	16 (16 to 16)	4 (4 to 4)	30 (25 to 34)	0 (0 to 0)	123 (105 to 140)
2020-2039	98 (82 to 122)	17 (16 to 18)	4 (4 to 4)	41 (36 to 49)	0 (0 to 0)	179 (153 to 219)
2040-2059	103 (91 to 112)	18 (17 to 19)	5 (5 to 5)	52 (45 to 62)	0 (0 to 0)	193 (171 to 216)
2060-2079	107 (91 to 121)	NA	NA	NA	NA	NA
2080-2099	181 (157 to 207)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	101 (101 to 101)	NA	NA	NA	NA	NA
1960-1979	80 (76 to 83)	NA	NA	NA	NA	NA
1980-1999	102 (96 to 122)	31 (31 to 31)	6 (6 to 6)	69 (60 to 81)	2 (1 to 2)	252 (232 to 293)
2000-2019	120 (98 to 140)	33 (33 to 33)	7 (7 to 7)	80 (67 to 92)	2 (2 to 2)	278 (239 to 317)
2020-2039	196 (164 to 244)	35 (34 to 36)	8 (8 to 8)	111 (95 to 130)	2 (2 to 3)	407 (349 to 496)
2040-2059	204 (181 to 222)	36 (34 to 38)	9 (9 to 9)	140 (121 to 167)	3 (2 to 3)	435 (386 to 486)
2060-2079	213 (182 to 242)	NA	NA	NA	NA	NA
2080-2099	362 (313 to 412)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	123 (123 to 123)	NA	NA	NA	NA	NA
1960-1979	97 (92 to 101)	NA	NA	NA	NA	NA
1980-1999	124 (117 to 147)	43 (43 to 43)	81 (81 to 81)	149 (129 to 175)	4 (4 to 5)	460 (429 to 524)
2000-2019	145 (119 to 169)	46 (45 to 46)	91 (91 to 91)	172 (145 to 199)	5 (4 to 6)	511 (449 to 571)
2020-2039	238 (199 to 295)	48 (46 to 50)	105 (105 to 105)	240 (205 to 282)	7 (6 to 8)	718 (627 to 848)
2040-2059	248 (219 to 270)	50 (47 to 53)	116 (116 to 116)	303 (262 to 361)	8 (7 to 10)	786 (707 to 876)
2060-2079	259 (221 to 293)	NA	NA	NA	NA	NA
2080-2099	438 (380 to 499)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Meander Valley

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	42 (42 to 42)	NA	NA	NA	NA	NA
1960-1979	34 (32 to 37)	NA	NA	NA	NA	NA
1980-1999	36 (29 to 43)	70 (70 to 70)	35 (35 to 35)	9 (8 to 10)	1 (1 to 1)	153 (144 to 164)
2000-2019	47 (41 to 51)	75 (73 to 76)	38 (38 to 38)	10 (9 to 11)	1 (1 to 1)	174 (164 to 182)
2020-2039	60 (46 to 86)	76 (73 to 80)	41 (41 to 41)	12 (11 to 15)	1 (1 to 2)	193 (174 to 229)
2040-2059	70 (56 to 84)	76 (70 to 83)	43 (43 to 43)	14 (11 to 19)	1 (1 to 2)	207 (183 to 237)
2060-2079	80 (68 to 95)	NA	NA	NA	NA	NA
2080-2099	125 (100 to 150)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	57 (57 to 57)	NA	NA	NA	NA	NA
1960-1979	47 (44 to 50)	NA	NA	NA	NA	NA
1980-1999	50 (39 to 59)	142 (141 to 142)	54 (54 to 54)	35 (30 to 39)	5 (4 to 5)	288 (269 to 304)
2000-2019	64 (56 to 70)	151 (149 to 154)	58 (58 to 58)	40 (36 to 44)	6 (5 to 6)	322 (306 to 337)
2020-2039	83 (63 to 117)	155 (148 to 163)	63 (63 to 63)	49 (41 to 60)	7 (6 to 8)	360 (323 to 416)
2040-2059	95 (77 to 115)	154 (143 to 168)	67 (67 to 67)	56 (45 to 74)	8 (6 to 10)	383 (340 to 440)
2060-2079	109 (93 to 131)	NA	NA	NA	NA	NA
2080-2099	172 (138 to 206)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	159 (159 to 159)	NA	NA	NA	NA	NA
1960-1979	130 (122 to 140)	NA	NA	NA	NA	NA
1980-1999	138 (110 to 165)	188 (188 to 189)	131 (131 to 131)	111 (96 to 126)	18 (16 to 20)	640 (590 to 695)
2000-2019	178 (157 to 195)	201 (198 to 205)	141 (141 to 141)	129 (114 to 141)	21 (19 to 23)	719 (670 to 766)
2020-2039	232 (176 to 328)	206 (197 to 216)	155 (155 to 155)	157 (133 to 192)	25 (21 to 31)	834 (731 to 1010)
2040-2059	266 (216 to 322)	205 (190 to 223)	163 (163 to 163)	180 (145 to 239)	29 (23 to 38)	897 (783 to 1048)
2060-2079	306 (260 to 366)	NA	NA	NA	NA	NA
2080-2099	482 (385 to 576)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

Northern Midlands

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	39 (39 to 39)	NA	NA	NA	NA	NA
1960-1979	32 (28 to 37)	NA	NA	NA	NA	NA
1980-1999	40 (29 to 51)	155 (154 to 155)	51 (51 to 51)	43 (32 to 62)	0 (0 to 0)	292 (268 to 324)
2000-2019	49 (36 to 73)	164 (161 to 167)	55 (55 to 55)	49 (36 to 72)	0 (0 to 0)	320 (290 to 372)
2020-2039	100 (53 to 205)	165 (159 to 173)	58 (58 to 58)	73 (46 to 130)	0 (0 to 0)	399 (318 to 571)
2040-2059	74 (54 to 103)	163 (153 to 176)	59 (59 to 59)	95 (54 to 186)	0 (0 to 0)	394 (322 to 530)
2060-2079	94 (65 to 177)	NA	NA	NA	NA	NA
2080-2099	133 (103 to 169)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	47 (47 to 47)	NA	NA	NA	NA	NA
1960-1979	38 (34 to 45)	NA	NA	NA	NA	NA
1980-1999	48 (35 to 62)	192 (192 to 193)	64 (64 to 64)	104 (76 to 149)	1 (1 to 1)	414 (372 to 476)
2000-2019	59 (43 to 88)	204 (201 to 207)	68 (68 to 68)	116 (86 to 172)	1 (1 to 1)	453 (402 to 543)
2020-2039	121 (64 to 249)	206 (198 to 215)	72 (72 to 72)	174 (110 to 311)	1 (1 to 2)	580 (449 to 861)
2040-2059	90 (65 to 125)	203 (190 to 219)	74 (74 to 74)	228 (130 to 448)	2 (1 to 3)	602 (464 to 878)
2060-2079	114 (78 to 214)	NA	NA	NA	NA	NA
2080-2099	161 (125 to 205)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	68 (68 to 68)	NA	NA	NA	NA	NA
1960-1979	55 (49 to 64)	NA	NA	NA	NA	NA
1980-1999	69 (50 to 90)	213 (213 to 214)	71 (71 to 71)	143 (105 to 206)	6 (4 to 8)	512 (451 to 603)
2000-2019	85 (62 to 128)	226 (222 to 230)	75 (75 to 75)	160 (119 to 237)	6 (5 to 9)	561 (490 to 694)
2020-2039	175 (92 to 360)	228 (219 to 238)	80 (80 to 80)	240 (152 to 430)	9 (6 to 16)	748 (558 to 1159)
2040-2059	130 (94 to 180)	225 (211 to 243)	82 (82 to 82)	315 (180 to 619)	12 (7 to 22)	774 (581 to 1163)
2060-2079	165 (113 to 309)	NA	NA	NA	NA	NA
2080-2099	233 (181 to 296)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

Sorell

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	14 (14 to 14)	NA	NA	NA	NA	NA
1960-1979	12 (11 to 12)	NA	NA	NA	NA	NA
1980-1999	16 (14 to 17)	16 (16 to 16)	4 (4 to 4)	5 (4 to 5)	0 (0 to 0)	51 (47 to 55)
2000-2019	14 (13 to 15)	18 (18 to 18)	5 (5 to 5)	5 (5 to 6)	0 (0 to 0)	50 (48 to 54)
2020-2039	18 (15 to 21)	21 (19 to 21)	6 (6 to 6)	8 (7 to 8)	0 (0 to 0)	62 (55 to 68)
2040-2059	20 (18 to 22)	23 (21 to 24)	8 (8 to 8)	9 (9 to 10)	0 (0 to 0)	68 (63 to 74)
2060-2079	33 (28 to 39)	NA	NA	NA	NA	NA
2080-2099	34 (31 to 39)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	32 (32 to 32)	NA	NA	NA	NA	NA
1960-1979	27 (26 to 27)	NA	NA	NA	NA	NA
1980-1999	36 (32 to 39)	22 (22 to 23)	63 (63 to 63)	33 (30 to 35)	2 (2 to 2)	175 (166 to 184)
2000-2019	33 (31 to 34)	26 (25 to 26)	79 (79 to 79)	40 (38 to 42)	3 (3 to 3)	196 (190 to 201)
2020-2039	41 (34 to 48)	29 (27 to 30)	106 (106 to 106)	57 (53 to 60)	4 (4 to 4)	254 (239 to 268)
2040-2059	45 (41 to 51)	33 (29 to 35)	130 (130 to 130)	72 (66 to 78)	5 (4 to 5)	300 (284 to 316)
2060-2079	77 (64 to 90)	NA	NA	NA	NA	NA
2080-2099	79 (73 to 91)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	463 (463 to 463)	NA	NA	NA	NA	NA
1960-1979	380 (371 to 394)	NA	NA	NA	NA	NA
1980-1999	514 (463 to 556)	328 (327 to 328)	326 (326 to 326)	462 (428 to 489)	6 (5 to 6)	2090 (1995 to 2170)
2000-2019	468 (440 to 491)	373 (364 to 379)	414 (414 to 414)	568 (540 to 590)	7 (7 to 7)	2272 (2201 to 2326)
2020-2039	593 (491 to 690)	428 (400 to 446)	554 (554 to 554)	804 (749 to 855)	10 (9 to 10)	2854 (2660 to 3030)
2040-2059	653 (588 to 732)	477 (427 to 509)	680 (680 to 680)	1025 (940 to 1106)	12 (11 to 13)	3330 (3122 to 3534)
2060-2079	1111 (922 to 1301)	NA	NA	NA	NA	NA
2080-2099	1144 (1051 to 1315)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

Southern Midlands

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	14 (14 to 14)	NA	NA	NA	NA	NA
1960-1979	12 (11 to 15)	NA	NA	NA	NA	NA
1980-1999	15 (13 to 16)	161 (161 to 162)	0 (0 to 0)	94 (75 to 132)	3 (3 to 5)	276 (254 to 320)
2000-2019	18 (14 to 28)	179 (174 to 185)	0 (0 to 0)	117 (93 to 169)	4 (3 to 6)	321 (286 to 393)
2020-2039	27 (18 to 49)	198 (184 to 212)	0 (0 to 0)	165 (129 to 248)	6 (4 to 8)	399 (337 to 522)
2040-2059	23 (20 to 28)	209 (187 to 233)	0 (0 to 0)	209 (161 to 320)	7 (6 to 10)	451 (376 to 596)
2060-2079	41 (32 to 57)	NA	NA	NA	NA	NA
2080-2099	47 (38 to 72)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	55 (55 to 55)	NA	NA	NA	NA	NA
1960-1979	47 (42 to 57)	NA	NA	NA	NA	NA
1980-1999	56 (49 to 62)	215 (214 to 216)	13 (13 to 13)	124 (99 to 175)	19 (15 to 26)	438 (399 to 506)
2000-2019	68 (51 to 106)	238 (232 to 245)	16 (16 to 16)	155 (123 to 225)	23 (19 to 34)	510 (449 to 642)
2020-2039	106 (71 to 188)	263 (245 to 282)	19 (19 to 19)	218 (170 to 329)	33 (26 to 49)	652 (539 to 891)
2040-2059	88 (76 to 106)	279 (249 to 310)	22 (22 to 22)	277 (214 to 425)	41 (32 to 63)	717 (600 to 939)
2060-2079	158 (123 to 221)	NA	NA	NA	NA	NA
2080-2099	184 (146 to 279)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	85 (85 to 85)	NA	NA	NA	NA	NA
1960-1979	72 (64 to 88)	NA	NA	NA	NA	NA
1980-1999	86 (75 to 96)	259 (258 to 261)	35 (35 to 35)	175 (139 to 246)	83 (66 to 117)	661 (593 to 783)
2000-2019	105 (79 to 164)	288 (280 to 296)	42 (42 to 42)	218 (173 to 316)	103 (82 to 150)	777 (672 to 1003)
2020-2039	163 (109 to 290)	318 (296 to 340)	52 (52 to 52)	307 (240 to 463)	146 (114 to 219)	1015 (829 to 1420)
2040-2059	136 (117 to 164)	337 (301 to 374)	61 (61 to 61)	390 (301 to 598)	185 (143 to 284)	1129 (938 to 1508)
2060-2079	243 (189 to 341)	NA	NA	NA	NA	NA
2080-2099	284 (225 to 431)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

Tasman

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	14 (14 to 14)	NA	NA	NA	NA	NA
1960-1979	13 (13 to 13)	NA	NA	NA	NA	NA
1980-1999	13 (13 to 13)	35 (35 to 35)	23 (23 to 23)	1 (1 to 1)	1 (1 to 1)	76 (75 to 78)
2000-2019	13 (13 to 13)	37 (36 to 38)	27 (27 to 27)	2 (2 to 2)	2 (2 to 2)	83 (81 to 86)
2020-2039	16 (16 to 16)	39 (37 to 43)	32 (32 to 32)	2 (2 to 2)	2 (2 to 2)	94 (91 to 100)
2040-2059	17 (17 to 17)	40 (36 to 46)	37 (37 to 37)	2 (2 to 2)	2 (2 to 2)	101 (96 to 109)
2060-2079	32 (32 to 32)	NA	NA	NA	NA	NA
2080-2099	34 (34 to 34)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	32 (32 to 32)	NA	NA	NA	NA	NA
1960-1979	28 (28 to 28)	NA	NA	NA	NA	NA
1980-1999	28 (28 to 28)	88 (88 to 88)	49 (49 to 49)	29 (29 to 29)	9 (9 to 9)	208 (207 to 210)
2000-2019	29 (29 to 29)	93 (90 to 96)	57 (57 to 57)	36 (36 to 36)	11 (11 to 11)	230 (226 to 235)
2020-2039	35 (35 to 35)	99 (92 to 107)	69 (69 to 69)	46 (46 to 46)	14 (14 to 14)	268 (260 to 278)
2040-2059	39 (39 to 39)	102 (90 to 115)	80 (80 to 80)	56 (56 to 56)	17 (17 to 17)	299 (286 to 314)
2060-2079	71 (71 to 71)	NA	NA	NA	NA	NA
2080-2099	76 (76 to 76)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	53 (53 to 53)	NA	NA	NA	NA	NA
1960-1979	46 (46 to 46)	NA	NA	NA	NA	NA
1980-1999	46 (46 to 46)	157 (157 to 158)	171 (171 to 171)	119 (119 to 119)	11 (11 to 11)	514 (513 to 517)
2000-2019	48 (48 to 48)	166 (161 to 172)	203 (203 to 203)	145 (145 to 145)	14 (14 to 14)	584 (578 to 592)
2020-2039	57 (57 to 57)	177 (164 to 192)	243 (243 to 243)	187 (187 to 187)	17 (17 to 17)	691 (677 to 708)
2040-2059	64 (64 to 64)	182 (161 to 206)	283 (283 to 283)	229 (229 to 229)	21 (21 to 21)	789 (767 to 815)
2060-2079	118 (118 to 118)	NA	NA	NA	NA	NA
2080-2099	125 (125 to 125)	NA	NA	NA	NA	NA

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Table D.2 Projected change of the SES workload – continued from previous page

Waratah/Wynyard

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	11 (11 to 11)	NA	NA	NA	NA	NA
1960-1979	9 (9 to 10)	NA	NA	NA	NA	NA
1980-1999	9 (8 to 11)	24 (24 to 24)	9 (9 to 9)	15 (13 to 17)	0 (0 to 0)	59 (55 to 65)
2000-2019	12 (10 to 13)	26 (25 to 26)	9 (9 to 9)	18 (15 to 19)	0 (0 to 0)	68 (61 to 72)
2020-2039	15 (13 to 18)	26 (25 to 28)	11 (11 to 11)	22 (19 to 25)	0 (0 to 0)	77 (70 to 87)
2040-2059	18 (16 to 20)	27 (25 to 29)	11 (11 to 11)	26 (22 to 29)	0 (0 to 0)	85 (76 to 95)
2060-2079	22 (16 to 26)	NA	NA	NA	NA	NA
2080-2099	32 (25 to 41)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	23 (23 to 23)	NA	NA	NA	NA	NA
1960-1979	19 (18 to 21)	NA	NA	NA	NA	NA
1980-1999	19 (17 to 22)	34 (34 to 35)	11 (11 to 11)	25 (21 to 28)	2 (2 to 3)	100 (93 to 111)
2000-2019	25 (20 to 27)	37 (36 to 37)	12 (12 to 12)	30 (25 to 32)	3 (2 to 3)	117 (103 to 123)
2020-2039	32 (26 to 38)	37 (36 to 39)	13 (13 to 13)	37 (31 to 41)	3 (3 to 4)	132 (117 to 148)
2040-2059	37 (33 to 42)	38 (35 to 41)	14 (14 to 14)	42 (36 to 49)	4 (3 to 4)	145 (130 to 163)
2060-2079	45 (32 to 54)	NA	NA	NA	NA	NA
2080-2099	66 (51 to 84)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	50 (50 to 50)	NA	NA	NA	NA	NA
1960-1979	42 (39 to 45)	NA	NA	NA	NA	NA
1980-1999	41 (37 to 48)	109 (108 to 109)	187 (187 to 187)	71 (60 to 78)	6 (5 to 7)	431 (412 to 450)
2000-2019	54 (45 to 59)	116 (114 to 118)	205 (205 to 205)	83 (70 to 90)	7 (6 to 8)	482 (455 to 500)
2020-2039	70 (57 to 83)	118 (113 to 124)	229 (229 to 229)	103 (88 to 115)	9 (8 to 10)	547 (510 to 584)
2040-2059	83 (72 to 92)	119 (111 to 129)	246 (246 to 246)	120 (102 to 137)	10 (9 to 12)	596 (556 to 638)
2060-2079	100 (70 to 120)	NA	NA	NA	NA	NA
2080-2099	146 (113 to 187)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

West Coast

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	27 (27 to 27)	NA	NA	NA	NA	NA
1960-1979	23 (21 to 25)	NA	NA	NA	NA	NA
1980-1999	24 (20 to 28)	41 (40 to 41)	0 (0 to 0)	39 (32 to 46)	4 (3 to 4)	110 (96 to 124)
2000-2019	29 (23 to 33)	38 (37 to 40)	0 (0 to 0)	39 (31 to 47)	4 (3 to 4)	113 (95 to 129)
2020-2039	36 (31 to 45)	36 (35 to 38)	0 (0 to 0)	40 (33 to 50)	4 (3 to 5)	119 (104 to 143)
2040-2059	46 (41 to 50)	34 (33 to 37)	0 (0 to 0)	41 (34 to 54)	4 (3 to 5)	128 (113 to 152)
2060-2079	62 (54 to 71)	NA	NA	NA	NA	NA
2080-2099	86 (76 to 103)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	37 (37 to 37)	NA	NA	NA	NA	NA
1960-1979	31 (29 to 33)	NA	NA	NA	NA	NA
1980-1999	32 (27 to 38)	88 (87 to 88)	17 (17 to 17)	80 (66 to 95)	7 (6 to 8)	232 (210 to 256)
2000-2019	39 (32 to 45)	83 (80 to 86)	16 (16 to 16)	80 (64 to 95)	7 (6 to 8)	233 (205 to 260)
2020-2039	49 (42 to 60)	77 (75 to 82)	14 (14 to 14)	82 (67 to 102)	7 (6 to 9)	238 (211 to 278)
2040-2059	62 (55 to 68)	74 (72 to 79)	13 (13 to 13)	85 (70 to 110)	7 (6 to 10)	251 (224 to 293)
2060-2079	83 (73 to 96)	NA	NA	NA	NA	NA
2080-2099	117 (103 to 139)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	91 (91 to 91)	NA	NA	NA	NA	NA
1960-1979	76 (70 to 81)	NA	NA	NA	NA	NA
1980-1999	80 (65 to 93)	253 (251 to 255)	22 (22 to 22)	187 (153 to 220)	21 (17 to 25)	604 (547 to 661)
2000-2019	95 (78 to 111)	238 (230 to 249)	21 (21 to 21)	187 (150 to 222)	21 (17 to 25)	605 (536 to 675)
2020-2039	120 (104 to 149)	222 (215 to 236)	19 (19 to 19)	191 (155 to 239)	22 (18 to 27)	622 (555 to 724)
2040-2059	152 (136 to 167)	213 (208 to 228)	17 (17 to 17)	197 (163 to 257)	22 (19 to 29)	655 (590 to 757)
2060-2079	206 (179 to 237)	NA	NA	NA	NA	NA
2080-2099	289 (256 to 344)	NA	NA	NA	NA	NA

Continued on next page

Table D.2 Projected change of the SES workload – continued from previous page

West Tamar

Low incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	30 (30 to 30)	NA	NA	NA	NA	NA
1960-1979	25 (24 to 25)	NA	NA	NA	NA	NA
1980-1999	30 (28 to 34)	145 (145 to 146)	13 (13 to 13)	68 (64 to 73)	7 (7 to 8)	266 (259 to 279)
2000-2019	31 (30 to 33)	157 (154 to 160)	15 (15 to 15)	77 (74 to 81)	8 (8 to 8)	291 (283 to 302)
2020-2039	51 (48 to 59)	167 (158 to 175)	17 (17 to 17)	106 (102 to 116)	11 (10 to 12)	355 (337 to 384)
2040-2059	56 (53 to 61)	172 (157 to 186)	19 (19 to 19)	134 (127 to 149)	14 (13 to 15)	398 (371 to 435)
2060-2079	59 (55 to 65)	NA	NA	NA	NA	NA
2080-2099	101 (92 to 111)	NA	NA	NA	NA	NA

Typical year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	53 (53 to 53)	NA	NA	NA	NA	NA
1960-1979	43 (41 to 44)	NA	NA	NA	NA	NA
1980-1999	52 (49 to 59)	169 (168 to 169)	35 (35 to 35)	89 (85 to 96)	11 (11 to 12)	368 (359 to 387)
2000-2019	55 (52 to 57)	183 (179 to 186)	39 (39 to 39)	101 (98 to 106)	13 (12 to 14)	402 (390 to 415)
2020-2039	90 (84 to 103)	194 (184 to 203)	45 (45 to 45)	140 (134 to 152)	18 (17 to 19)	502 (477 to 540)
2040-2059	97 (92 to 107)	200 (182 to 216)	49 (49 to 49)	176 (168 to 197)	22 (21 to 25)	557 (523 to 609)
2060-2079	103 (96 to 113)	NA	NA	NA	NA	NA
2080-2099	177 (160 to 194)	NA	NA	NA	NA	NA

High incident year

Period	Climate	Vehicle	Missing	Assistance	Cancelled	Effort Index
1960-1990	93 (93 to 93)	NA	NA	NA	NA	NA
1960-1979	75 (73 to 77)	NA	NA	NA	NA	NA
1980-1999	92 (86 to 104)	270 (269 to 271)	56 (56 to 56)	120 (114 to 129)	14 (14 to 15)	567 (552 to 594)
2000-2019	96 (92 to 100)	292 (286 to 297)	63 (63 to 63)	136 (131 to 143)	16 (16 to 17)	616 (600 to 635)
2020-2039	158 (148 to 182)	310 (294 to 325)	72 (72 to 72)	188 (180 to 205)	22 (21 to 24)	768 (731 to 830)
2040-2059	171 (162 to 188)	320 (292 to 346)	79 (79 to 79)	237 (225 to 264)	28 (27 to 31)	851 (799 to 926)
2060-2079	181 (169 to 199)	NA	NA	NA	NA	NA
2080-2099	311 (283 to 342)	NA	NA	NA	NA	NA

Table D.3: Projected change of the TFS workload (effort index per year) in each municipality to 2100 compared to the base period (1960-1990).

Break O'Day

Period	Low incident year	Typical year	High incident year
1960-1990	128 (128 to 128)	212 (212 to 212)	376 (376 to 376)
1960-1979	104 (93 to 121)	173 (154 to 201)	308 (274 to 357)
1980-1999	140 (103 to 180)	233 (171 to 298)	413 (304 to 530)
2000-2019	158 (124 to 181)	262 (205 to 301)	466 (364 to 533)
2020-2039	296 (175 to 576)	491 (290 to 954)	872 (515 to 1692)
2040-2059	268 (211 to 308)	445 (349 to 510)	789 (620 to 906)
2060-2079	362 (245 to 771)	599 (407 to 1278)	1064 (721 to 2267)
2080-2099	408 (284 to 540)	676 (470 to 894)	1199 (834 to 1586)

Brighton

Period	Low incident year	Typical year	High incident year
1960-1990	536 (536 to 536)	860 (860 to 860)	1292 (1292 to 1292)
1960-1979	498 (498 to 498)	799 (799 to 799)	1201 (1201 to 1201)
1980-1999	482 (466 to 493)	774 (748 to 791)	1162 (1124 to 1188)
2000-2019	616 (605 to 621)	988 (971 to 997)	1485 (1459 to 1498)
2020-2039	1195 (1189 to 1200)	1917 (1909 to 1926)	2881 (2868 to 2894)
2040-2059	900 (879 to 921)	1444 (1410 to 1479)	2170 (2118 to 2222)
2060-2079	1264 (1093 to 1436)	2029 (1754 to 2304)	3049 (2635 to 3462)
2080-2099	1999 (1859 to 2133)	3207 (2984 to 3422)	4819 (4483 to 5142)

Burnie

Period	Low incident year	Typical year	High incident year
1960-1990	164 (164 to 164)	216 (216 to 216)	328 (328 to 328)
1960-1979	132 (127 to 134)	174 (168 to 177)	265 (255 to 268)
1980-1999	136 (129 to 142)	179 (170 to 187)	272 (259 to 285)
2000-2019	168 (157 to 175)	222 (207 to 231)	337 (314 to 350)
2020-2039	188 (175 to 193)	248 (231 to 254)	377 (350 to 387)
2040-2059	231 (221 to 250)	304 (291 to 330)	462 (442 to 501)
2060-2079	268 (244 to 288)	354 (321 to 380)	537 (488 to 577)
2080-2099	375 (329 to 406)	494 (434 to 535)	751 (659 to 813)

Central Coast

Period	Low incident year	Typical year	High incident year
1960-1990	156 (156 to 156)	224 (224 to 224)	316 (316 to 316)
1960-1979	126 (121 to 135)	181 (174 to 194)	255 (246 to 274)
1980-1999	124 (118 to 132)	179 (170 to 190)	252 (240 to 268)
2000-2019	154 (131 to 174)	221 (188 to 250)	312 (265 to 353)
2020-2039	177 (165 to 195)	255 (237 to 280)	360 (334 to 395)
2040-2059	219 (198 to 257)	315 (284 to 369)	445 (401 to 521)
2060-2079	257 (230 to 330)	369 (331 to 474)	521 (467 to 669)
2080-2099	386 (326 to 597)	555 (468 to 857)	783 (660 to 1210)

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Table D.3 Projected change of TFS workload – continued from previous page

Central Highlands

Period	Low incident year	Typical year	High incident year
1960-1990	96 (96 to 96)	152 (152 to 152)	448 (448 to 448)
1960-1979	81 (72 to 93)	129 (115 to 147)	380 (340 to 434)
1980-1999	88 (71 to 139)	139 (112 to 220)	412 (331 to 649)
2000-2019	110 (93 to 138)	174 (147 to 218)	515 (434 to 645)
2020-2039	180 (124 to 399)	285 (197 to 632)	842 (582 to 1863)
2040-2059	173 (138 to 219)	275 (218 to 348)	810 (645 to 1025)
2060-2079	267 (190 to 517)	424 (300 to 819)	1249 (887 to 2414)
2080-2099	344 (244 to 462)	545 (387 to 732)	1608 (1142 to 2159)

Circular Head

Period	Low incident year	Typical year	High incident year
1960-1990	72 (72 to 72)	152 (152 to 152)	412 (412 to 412)
1960-1979	59 (56 to 62)	126 (118 to 132)	341 (321 to 358)
1980-1999	60 (54 to 68)	127 (114 to 144)	346 (309 to 391)
2000-2019	75 (60 to 86)	159 (127 to 182)	432 (346 to 494)
2020-2039	91 (82 to 108)	193 (174 to 228)	523 (473 to 618)
2040-2059	115 (102 to 144)	244 (215 to 304)	663 (585 to 824)
2060-2079	136 (103 to 180)	288 (218 to 380)	782 (593 to 1030)
2080-2099	203 (167 to 337)	428 (354 to 712)	1161 (959 to 1932)

Clarence

Period	Low incident year	Typical year	High incident year
1960-1990	736 (736 to 736)	1012 (1012 to 1012)	1352 (1352 to 1352)
1960-1979	640 (559 to 699)	880 (769 to 961)	1176 (1027 to 1284)
1980-1999	758 (655 to 846)	1042 (900 to 1163)	1392 (1203 to 1554)
2000-2019	883 (839 to 912)	1214 (1153 to 1254)	1622 (1541 to 1676)
2020-2039	1126 (920 to 1346)	1548 (1265 to 1851)	2068 (1690 to 2474)
2040-2059	1346 (1214 to 1545)	1851 (1669 to 2125)	2474 (2230 to 2839)
2060-2079	2068 (1589 to 2612)	2843 (2185 to 3592)	3799 (2920 to 4799)
2080-2099	2377 (2009 to 2885)	3268 (2762 to 3967)	4366 (3690 to 5299)

Derwent Valley

Period	Low incident year	Typical year	High incident year
1960-1990	216 (216 to 216)	356 (356 to 356)	552 (552 to 552)
1960-1979	183 (166 to 228)	302 (274 to 377)	469 (425 to 585)
1980-1999	196 (181 to 218)	323 (299 to 359)	502 (463 to 557)
2000-2019	231 (209 to 261)	380 (345 to 430)	590 (535 to 667)
2020-2039	328 (244 to 511)	541 (402 to 843)	839 (623 to 1308)
2040-2059	382 (356 to 488)	630 (587 to 804)	977 (910 to 1247)
2060-2079	503 (447 to 673)	829 (736 to 1110)	1286 (1142 to 1722)
2080-2099	743 (645 to 1114)	1224 (1064 to 1836)	1898 (1650 to 2848)

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Table D.3 Projected change of TFS workload – continued from previous page

Devonport

Period	Low incident year	Typical year	High incident year
1960-1990	152 (152 to 152)	200 (200 to 200)	304 (304 to 304)
1960-1979	120 (120 to 120)	158 (158 to 158)	240 (240 to 240)
1980-1999	135 (135 to 135)	178 (178 to 178)	270 (270 to 270)
2000-2019	120 (120 to 120)	158 (158 to 158)	240 (240 to 240)
2020-2039	185 (185 to 185)	244 (244 to 244)	370 (370 to 370)
2040-2059	208 (208 to 208)	274 (274 to 274)	416 (416 to 416)
2060-2079	267 (267 to 267)	352 (352 to 352)	535 (535 to 535)
2080-2099	401 (401 to 401)	528 (528 to 528)	802 (802 to 802)

Dorset

Period	Low incident year	Typical year	High incident year
1960-1990	156 (156 to 156)	256 (256 to 256)	472 (472 to 472)
1960-1979	124 (113 to 141)	204 (186 to 232)	377 (344 to 429)
1980-1999	137 (124 to 162)	225 (204 to 266)	415 (377 to 490)
2000-2019	179 (156 to 209)	294 (256 to 343)	542 (472 to 632)
2020-2039	282 (209 to 411)	463 (343 to 675)	854 (632 to 1246)
2040-2059	322 (280 to 439)	529 (460 to 721)	977 (849 to 1331)
2060-2079	361 (291 to 638)	593 (478 to 1047)	1095 (882 to 1930)
2080-2099	592 (492 to 1159)	972 (808 to 1902)	1793 (1491 to 3506)

Flinders

Period	Low incident year	Typical year	High incident year
1960-1990	16 (16 to 16)	28 (28 to 28)	48 (48 to 48)
1960-1979	14 (13 to 15)	26 (24 to 26)	44 (41 to 46)
1980-1999	15 (13 to 16)	26 (23 to 29)	45 (39 to 50)
2000-2019	20 (16 to 25)	35 (28 to 44)	60 (48 to 75)
2020-2039	28 (18 to 43)	49 (31 to 75)	85 (54 to 129)
2040-2059	44 (24 to 65)	78 (42 to 114)	134 (72 to 195)
2060-2079	52 (38 to 95)	91 (67 to 166)	156 (116 to 285)
2080-2099	71 (51 to 140)	124 (90 to 246)	214 (155 to 422)

George Town

Period	Low incident year	Typical year	High incident year
1960-1990	244 (244 to 244)	316 (316 to 316)	512 (512 to 512)
1960-1979	187 (170 to 212)	243 (221 to 274)	394 (358 to 445)
1980-1999	219 (190 to 251)	284 (246 to 325)	460 (399 to 527)
2000-2019	251 (234 to 270)	325 (303 to 350)	527 (491 to 568)
2020-2039	407 (370 to 475)	527 (480 to 616)	855 (778 to 998)
2040-2059	507 (436 to 629)	657 (565 to 815)	1064 (916 to 1320)
2060-2079	605 (444 to 1161)	783 (575 to 1504)	1269 (931 to 2437)
2080-2099	1102 (768 to 1983)	1428 (995 to 2569)	2314 (1612 to 4162)

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Table D.3 Projected change of TFS workload – continued from previous page

Glamorgan/Spring Bay

Period	Low incident year	Typical year	High incident year
1960-1990	76 (76 to 76)	164 (164 to 164)	316 (316 to 316)
1960-1979	61 (55 to 72)	132 (119 to 155)	255 (230 to 300)
1980-1999	83 (74 to 93)	180 (160 to 201)	347 (309 to 388)
2000-2019	85 (72 to 98)	185 (155 to 213)	357 (300 to 410)
2020-2039	112 (88 to 143)	242 (191 to 309)	467 (369 to 597)
2040-2059	120 (94 to 148)	260 (203 to 319)	502 (391 to 616)
2060-2079	178 (146 to 202)	385 (316 to 437)	742 (609 to 843)
2080-2099	192 (152 to 247)	414 (328 to 533)	799 (632 to 1027)

Glenorchy

Period	Low incident year	Typical year	High incident year
1960-1990	424 (424 to 424)	528 (528 to 528)	664 (664 to 664)
1960-1979	419 (419 to 419)	522 (522 to 522)	657 (657 to 657)
1980-1999	377 (377 to 377)	469 (469 to 469)	590 (590 to 590)
2000-2019	504 (504 to 504)	628 (628 to 628)	790 (790 to 790)
2020-2039	593 (593 to 593)	739 (739 to 739)	929 (929 to 929)
2040-2059	746 (746 to 746)	929 (929 to 929)	1168 (1168 to 1168)
2060-2079	962 (962 to 962)	1198 (1198 to 1198)	1507 (1507 to 1507)
2080-2099	1255 (1255 to 1255)	1562 (1562 to 1562)	1965 (1965 to 1965)

Hobart

Period	Low incident year	Typical year	High incident year
1960-1990	196 (196 to 196)	320 (320 to 320)	788 (788 to 788)
1960-1979	174 (172 to 174)	284 (281 to 284)	701 (693 to 701)
1980-1999	180 (176 to 186)	294 (288 to 304)	724 (709 to 748)
2000-2019	205 (203 to 209)	336 (332 to 342)	827 (819 to 843)
2020-2039	235 (235 to 235)	384 (384 to 384)	945 (945 to 945)
2040-2059	327 (311 to 344)	534 (508 to 563)	1315 (1252 to 1386)
2060-2079	421 (401 to 441)	688 (656 to 720)	1694 (1615 to 1773)
2080-2099	542 (484 to 599)	886 (790 to 979)	2182 (1946 to 2411)

Huon Valley

Period	Low incident year	Typical year	High incident year
1960-1990	192 (192 to 192)	408 (408 to 408)	504 (504 to 504)
1960-1979	163 (153 to 176)	346 (326 to 375)	428 (403 to 463)
1980-1999	165 (136 to 186)	350 (289 to 395)	433 (357 to 488)
2000-2019	182 (142 to 226)	387 (301 to 481)	478 (372 to 594)
2020-2039	245 (195 to 295)	522 (416 to 628)	645 (514 to 776)
2040-2059	320 (259 to 445)	681 (550 to 946)	841 (680 to 1169)
2060-2079	401 (345 to 487)	852 (734 to 1036)	1053 (907 to 1280)
2080-2099	572 (387 to 673)	1215 (824 to 1432)	1501 (1018 to 1769)

Continued on next page

Table D.3 Projected change of TFS workload – continued from previous page

Kentish

Period	Low incident year	Typical year	High incident year
1960-1990	28 (28 to 28)	84 (84 to 84)	180 (180 to 180)
1960-1979	22 (21 to 23)	68 (64 to 71)	145 (138 to 153)
1980-1999	23 (20 to 25)	69 (62 to 75)	149 (133 to 162)
2000-2019	30 (26 to 34)	91 (78 to 103)	196 (169 to 221)
2020-2039	34 (31 to 42)	104 (93 to 128)	223 (199 to 275)
2040-2059	42 (37 to 50)	126 (112 to 152)	271 (241 to 325)
2060-2079	48 (41 to 63)	145 (125 to 189)	311 (268 to 406)
2080-2099	71 (61 to 91)	215 (183 to 274)	460 (392 to 588)

King Island

Period	Low incident year	Typical year	High incident year
1960-1990	8 (8 to 8)	16 (16 to 16)	72 (72 to 72)
1960-1979	6 (6 to 7)	13 (12 to 14)	60 (58 to 63)
1980-1999	6 (6 to 7)	13 (12 to 15)	61 (56 to 67)
2000-2019	7 (6 to 8)	14 (13 to 16)	66 (60 to 73)
2020-2039	11 (9 to 13)	22 (19 to 26)	101 (86 to 120)
2040-2059	14 (13 to 15)	28 (26 to 30)	127 (118 to 138)
2060-2079	17 (13 to 23)	35 (26 to 46)	161 (118 to 208)
2080-2099	32 (23 to 40)	65 (46 to 81)	294 (210 to 365)

Kingborough

Period	Low incident year	Typical year	High incident year
1960-1990	196 (196 to 196)	280 (280 to 280)	412 (412 to 412)
1960-1979	174 (168 to 178)	249 (240 to 254)	366 (354 to 374)
1980-1999	176 (154 to 199)	252 (221 to 285)	370 (325 to 420)
2000-2019	199 (192 to 207)	285 (274 to 296)	420 (403 to 436)
2020-2039	225 (209 to 235)	322 (299 to 336)	473 (440 to 494)
2040-2059	325 (290 to 341)	464 (414 to 487)	683 (609 to 716)
2060-2079	452 (393 to 578)	646 (562 to 826)	951 (828 to 1215)
2080-2099	564 (525 to 611)	806 (750 to 873)	1186 (1104 to 1285)

Latrobe

Period	Low incident year	Typical year	High incident year
1960-1990	76 (76 to 76)	132 (132 to 132)	192 (192 to 192)
1960-1979	61 (58 to 67)	106 (101 to 117)	155 (147 to 170)
1980-1999	73 (61 to 80)	128 (106 to 139)	186 (155 to 203)
2000-2019	72 (60 to 80)	126 (104 to 139)	184 (151 to 203)
2020-2039	108 (98 to 118)	188 (171 to 205)	274 (249 to 299)
2040-2059	118 (103 to 133)	205 (179 to 232)	299 (261 to 337)
2060-2079	137 (120 to 158)	238 (208 to 275)	347 (303 to 401)
2080-2099	237 (208 to 294)	413 (361 to 510)	600 (526 to 743)

Continued on next page

Table D.3 Projected change of TFS workload – continued from previous page

Launceston

Period	Low incident year	Typical year	High incident year
1960-1990	892 (892 to 892)	1312 (1312 to 1312)	1512 (1512 to 1512)
1960-1979	704 (669 to 731)	1036 (984 to 1075)	1194 (1134 to 1239)
1980-1999	900 (847 to 1070)	1325 (1246 to 1574)	1527 (1436 to 1814)
2000-2019	1052 (865 to 1230)	1548 (1272 to 1810)	1784 (1466 to 2086)
2020-2039	1730 (1445 to 2149)	2545 (2125 to 3161)	2933 (2449 to 3643)
2040-2059	1801 (1596 to 1962)	2650 (2348 to 2886)	3054 (2706 to 3326)
2060-2079	1882 (1605 to 2131)	2768 (2361 to 3135)	3190 (2721 to 3613)
2080-2099	3193 (2765 to 3639)	4696 (4067 to 5352)	5412 (4687 to 6168)

Meander Valley

Period	Low incident year	Typical year	High incident year
1960-1990	148 (148 to 148)	236 (236 to 236)	360 (360 to 360)
1960-1979	121 (113 to 130)	193 (181 to 207)	295 (277 to 316)
1980-1999	128 (102 to 153)	205 (162 to 245)	313 (248 to 374)
2000-2019	165 (146 to 182)	264 (233 to 290)	403 (356 to 442)
2020-2039	216 (164 to 306)	344 (261 to 488)	525 (399 to 745)
2040-2059	248 (201 to 300)	396 (320 to 479)	604 (489 to 730)
2060-2079	285 (242 to 341)	455 (387 to 545)	694 (590 to 831)
2080-2099	449 (359 to 538)	717 (573 to 859)	1094 (874 to 1310)

Northern Midlands

Period	Low incident year	Typical year	High incident year
1960-1990	156 (156 to 156)	260 (260 to 260)	392 (392 to 392)
1960-1979	124 (112 to 146)	208 (187 to 244)	313 (282 to 368)
1980-1999	157 (113 to 204)	262 (189 to 340)	395 (286 to 513)
2000-2019	193 (141 to 291)	322 (236 to 486)	486 (356 to 733)
2020-2039	399 (210 to 823)	665 (351 to 1372)	1003 (529 to 2069)
2040-2059	296 (215 to 411)	494 (358 to 686)	744 (540 to 1034)
2060-2079	377 (258 to 708)	629 (431 to 1180)	948 (650 to 1779)
2080-2099	533 (413 to 678)	889 (689 to 1131)	1340 (1038 to 1705)

Sorell

Period	Low incident year	Typical year	High incident year
1960-1990	116 (116 to 116)	172 (172 to 172)	240 (240 to 240)
1960-1979	95 (92 to 98)	141 (137 to 146)	196 (192 to 204)
1980-1999	128 (116 to 139)	190 (172 to 206)	266 (240 to 288)
2000-2019	117 (110 to 122)	173 (163 to 182)	242 (228 to 254)
2020-2039	148 (122 to 172)	220 (182 to 256)	307 (254 to 357)
2040-2059	163 (147 to 183)	242 (218 to 271)	338 (304 to 379)
2060-2079	278 (230 to 325)	412 (342 to 483)	576 (477 to 674)
2080-2099	286 (263 to 329)	424 (390 to 488)	592 (544 to 681)

Continued on next page

Table D.3 Projected change of TFS workload – continued from previous page

Southern Midlands

Period	Low incident year	Typical year	High incident year
1960-1990	112 (112 to 112)	176 (176 to 176)	360 (360 to 360)
1960-1979	95 (84 to 115)	149 (132 to 181)	306 (270 to 370)
1980-1999	113 (98 to 126)	177 (154 to 198)	363 (316 to 406)
2000-2019	138 (104 to 216)	218 (163 to 339)	446 (334 to 694)
2020-2039	215 (143 to 384)	337 (225 to 603)	691 (460 to 1234)
2040-2059	179 (154 to 216)	281 (242 to 339)	576 (496 to 694)
2060-2079	321 (249 to 451)	505 (392 to 709)	1033 (802 to 1450)
2080-2099	375 (297 to 570)	589 (468 to 895)	1206 (957 to 1832)

Tasman

Period	Low incident year	Typical year	High incident year
1960-1990	40 (40 to 40)	76 (76 to 76)	152 (152 to 152)
1960-1979	34 (34 to 34)	66 (66 to 66)	132 (132 to 132)
1980-1999	34 (34 to 34)	65 (65 to 65)	130 (130 to 130)
2000-2019	36 (36 to 36)	68 (68 to 68)	136 (136 to 136)
2020-2039	43 (43 to 43)	82 (82 to 82)	164 (164 to 164)
2040-2059	48 (48 to 48)	91 (91 to 91)	183 (183 to 183)
2060-2079	89 (89 to 89)	170 (170 to 170)	340 (340 to 340)
2080-2099	95 (95 to 95)	180 (180 to 180)	361 (361 to 361)

Waratah/Wynyard

Period	Low incident year	Typical year	High incident year
1960-1990	100 (100 to 100)	136 (136 to 136)	220 (220 to 220)
1960-1979	83 (78 to 90)	112 (106 to 122)	182 (171 to 198)
1980-1999	82 (73 to 95)	111 (99 to 129)	180 (160 to 209)
2000-2019	108 (89 to 117)	146 (121 to 159)	237 (195 to 257)
2020-2039	139 (112 to 166)	189 (153 to 225)	305 (248 to 365)
2040-2059	165 (144 to 184)	224 (195 to 250)	363 (316 to 404)
2060-2079	200 (140 to 239)	272 (190 to 325)	440 (308 to 525)
2080-2099	291 (225 to 373)	395 (307 to 507)	640 (497 to 820)

West Coast

Period	Low incident year	Typical year	High incident year
1960-1990	88 (88 to 88)	136 (136 to 136)	268 (268 to 268)
1960-1979	73 (67 to 78)	112 (104 to 121)	222 (206 to 238)
1980-1999	76 (62 to 89)	118 (96 to 138)	233 (190 to 273)
2000-2019	91 (74 to 107)	141 (115 to 165)	278 (227 to 326)
2020-2039	115 (100 to 143)	178 (155 to 221)	351 (305 to 436)
2040-2059	146 (131 to 161)	227 (202 to 248)	447 (399 to 490)
2060-2079	198 (173 to 228)	307 (267 to 353)	605 (527 to 696)
2080-2099	279 (247 to 332)	432 (382 to 514)	852 (753 to 1013)

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Table D.3 Projected change of TFS workload – continued from previous page

		West Tamar	
Period	Low incident year	Typical year	High incident year
1960-1990	136 (136 to 136)	260 (260 to 260)	376 (376 to 376)
1960-1979	110 (106 to 112)	210 (202 to 215)	304 (293 to 312)
1980-1999	134 (125 to 152)	257 (239 to 291)	372 (345 to 421)
2000-2019	140 (134 to 146)	267 (257 to 280)	387 (372 to 406)
2020-2039	231 (216 to 266)	442 (413 to 509)	639 (597 to 736)
2040-2059	250 (238 to 276)	478 (455 to 527)	691 (658 to 763)
2060-2079	265 (247 to 292)	507 (473 to 559)	733 (684 to 808)
2080-2099	456 (414 to 501)	873 (793 to 959)	1263 (1146 to 1387)

Appendix E

Tables presenting the personnel requirements to 2060.

Table E.1: Projected AT personnel requirements in each municipality to 2100. Projections were based on the assumption that current personnel levels were adequate to manage *high incident year*.

Break O'Day

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	109 (108 to 110)	-19 (-19 to -18)	29	80 (79 to 81)
2000-2019	120 (111 to 127)	-11 (-17 to -5)	30	90 (81 to 97)
2020-2039	126 (108 to 149)	-6 (-19 to 11)	26	100 (82 to 123)
2040-2059	128 (101 to 165)	-5 (-25 to 23)	23	105 (78 to 142)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	119 (118 to 120)	-11 (-12 to -11)	29	90 (89 to 91)
2000-2019	130 (122 to 139)	-3 (-9 to 3)	30	100 (92 to 109)
2020-2039	137 (118 to 162)	2 (-12 to 20)	28	109 (90 to 134)
2040-2059	140 (110 to 180)	4 (-18 to 34)	24	116 (86 to 156)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	123 (122 to 124)	-8 (-9 to -8)	29	94 (93 to 95)
2000-2019	135 (126 to 144)	0 (-6 to 7)	30	105 (96 to 114)
2020-2039	141 (122 to 167)	5 (-9 to 24)	29	112 (93 to 138)
2040-2059	146 (113 to 187)	9 (-16 to 39)	27	119 (86 to 160)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Brighton

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Burnie

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Central Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Central Highlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	16 (16 to 16)	-36 (-36 to -36)	23	-7 (-7 to -7)
2000-2019	18 (17 to 19)	-28 (-31 to -24)	24	-6 (-7 to -5)
2020-2039	18 (16 to 21)	-28 (-36 to -16)	20	-2 (-4 to 1)
2040-2059	17 (14 to 22)	-31 (-43 to -12)	16	1 (-2 to 6)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	19 (18 to 19)	-24 (-28 to -24)	23	-4 (-5 to -4)
2000-2019	21 (20 to 22)	-16 (-19 to -12)	24	-3 (-4 to -2)
2020-2039	21 (19 to 24)	-16 (-24 to -4)	21	0 (-2 to 3)
2040-2059	20 (16 to 25)	-19 (-36 to 0)	17	3 (-1 to 8)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	22 (22 to 22)	-12 (-12 to -12)	23	-1 (-1 to -1)
2000-2019	25 (23 to 26)	0 (-7 to 5)	24	1 (-1 to 2)
2020-2039	25 (22 to 30)	0 (-12 to 20)	22	3 (0 to 8)
2040-2059	23 (19 to 31)	-7 (-24 to 24)	21	2 (-2 to 10)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Circular Head

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2000-2019	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2020-2039	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2040-2059	NA	NaN (NaN to NaN)	18	-18 (-18 to -18)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2000-2019	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2020-2039	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2040-2059	NA	NaN (NaN to NaN)	18	-18 (-18 to -18)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2000-2019	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2020-2039	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2040-2059	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Clarence

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2000-2019	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2020-2039	NA	NaN (NaN to NaN)	11	-11 (-11 to -11)
2040-2059	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2000-2019	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2020-2039	NA	NaN (NaN to NaN)	11	-11 (-11 to -11)
2040-2059	NA	NaN (NaN to NaN)	11	-11 (-11 to -11)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2000-2019	NA	NaN (NaN to NaN)	10	-10 (-10 to -10)
2020-2039	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2040-2059	NA	NaN (NaN to NaN)	13	-13 (-13 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Derwent Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (9 to 9)	-35 (-35 to -35)	29	-20 (-20 to -20)
2000-2019	11 (9 to 11)	-21 (-35 to -21)	30	-19 (-21 to -19)
2020-2039	11 (9 to 12)	-21 (-35 to -14)	28	-17 (-19 to -16)
2040-2059	11 (9 to 13)	-21 (-35 to -7)	25	-14 (-16 to -12)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (11 to 11)	-21 (-21 to -21)	29	-18 (-18 to -18)
2000-2019	13 (11 to 13)	-7 (-21 to -7)	30	-17 (-19 to -17)
2020-2039	13 (11 to 15)	-7 (-21 to 8)	29	-16 (-18 to -14)
2040-2059	13 (11 to 15)	-7 (-21 to 8)	27	-14 (-16 to -12)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	13 (12 to 13)	-7 (-14 to -7)	29	-16 (-17 to -16)
2000-2019	14 (12 to 15)	0 (-14 to 8)	30	-16 (-18 to -15)
2020-2039	14 (12 to 16)	0 (-14 to 15)	31	-17 (-19 to -15)
2040-2059	14 (12 to 17)	0 (-14 to 22)	30	-16 (-18 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Devonport

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Dorset

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2000-2019	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2020-2039	NA	NaN (NaN to NaN)	15	-15 (-15 to -15)
2040-2059	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2000-2019	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2020-2039	NA	NaN (NaN to NaN)	16	-16 (-16 to -16)
2040-2059	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2000-2019	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2020-2039	NA	NaN (NaN to NaN)	17	-17 (-17 to -17)
2040-2059	NA	NaN (NaN to NaN)	16	-16 (-16 to -16)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Flinders

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (17 to 17)	-31 (-31 to -31)	16	1 (1 to 1)
2000-2019	19 (18 to 20)	-24 (-28 to -19)	16	3 (2 to 4)
2020-2039	18 (15 to 20)	-28 (-40 to -19)	10	8 (5 to 10)
2040-2059	17 (12 to 21)	-31 (-52 to -16)	8	9 (4 to 13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	21 (21 to 21)	-16 (-16 to -16)	16	5 (5 to 5)
2000-2019	23 (22 to 24)	-7 (-12 to -4)	16	7 (6 to 8)
2020-2039	22 (18 to 25)	-12 (-28 to 0)	11	11 (7 to 14)
2040-2059	20 (14 to 26)	-19 (-43 to 5)	9	11 (5 to 17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	23 (22 to 23)	-7 (-12 to -7)	16	7 (6 to 7)
2000-2019	25 (23 to 26)	0 (-7 to 5)	16	9 (7 to 10)
2020-2039	23 (19 to 27)	-7 (-24 to 9)	12	11 (7 to 15)
2040-2059	21 (15 to 27)	-16 (-40 to 9)	10	11 (5 to 17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

George Town

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2000-2019	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2020-2039	NA	NaN (NaN to NaN)	16	-16 (-16 to -16)
2040-2059	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2000-2019	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2020-2039	NA	NaN (NaN to NaN)	18	-18 (-18 to -18)
2040-2059	NA	NaN (NaN to NaN)	17	-17 (-17 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2000-2019	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2020-2039	NA	NaN (NaN to NaN)	18	-18 (-18 to -18)
2040-2059	NA	NaN (NaN to NaN)	17	-17 (-17 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Glamorgan/Spring Bay

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	47 (47 to 48)	-14 (-14 to -12)	30	17 (17 to 18)
2000-2019	49 (48 to 54)	-10 (-12 to -1)	31	18 (17 to 23)
2020-2039	44 (44 to 59)	-19 (-19 to 8)	23	21 (21 to 36)
2040-2059	38 (37 to 62)	-30 (-32 to 13)	18	20 (19 to 44)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	51 (51 to 51)	-7 (-7 to -7)	30	21 (21 to 21)
2000-2019	52 (51 to 59)	-5 (-7 to 8)	31	21 (20 to 28)
2020-2039	47 (47 to 64)	-14 (-14 to 17)	23	24 (24 to 41)
2040-2059	40 (39 to 67)	-27 (-29 to 22)	18	22 (21 to 49)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	53 (53 to 54)	-3 (-3 to -1)	30	23 (23 to 24)
2000-2019	55 (54 to 62)	0 (-1 to 13)	31	24 (23 to 31)
2020-2039	49 (49 to 67)	-10 (-10 to 22)	26	23 (23 to 41)
2040-2059	42 (41 to 70)	-23 (-25 to 28)	23	19 (18 to 47)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Glenorchy

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Hobart

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Huon Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	15 (15 to 15)	-34 (-34 to -34)	33	-18 (-18 to -18)
2000-2019	17 (16 to 20)	-26 (-30 to -13)	34	-17 (-18 to -14)
2020-2039	21 (17 to 25)	-8 (-26 to 9)	34	-13 (-17 to -9)
2040-2059	23 (17 to 30)	0 (-26 to 31)	31	-8 (-14 to -1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (17 to 18)	-26 (-26 to -21)	33	-16 (-16 to -15)
2000-2019	20 (19 to 23)	-13 (-17 to 0)	34	-14 (-15 to -11)
2020-2039	25 (19 to 30)	9 (-17 to 31)	38	-13 (-19 to -8)
2040-2059	27 (20 to 35)	18 (-13 to 53)	39	-12 (-19 to -4)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	20 (19 to 20)	-13 (-17 to -13)	33	-13 (-14 to -13)
2000-2019	23 (21 to 26)	0 (-8 to 14)	34	-11 (-13 to -8)
2020-2039	28 (22 to 34)	22 (-4 to 48)	42	-14 (-20 to -8)
2040-2059	32 (23 to 40)	40 (0 to 74)	44	-12 (-21 to -4)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Kentish

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2000-2019	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2020-2039	NA	NaN (NaN to NaN)	30	-30 (-30 to -30)
2040-2059	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2000-2019	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2020-2039	NA	NaN (NaN to NaN)	33	-33 (-33 to -33)
2040-2059	NA	NaN (NaN to NaN)	34	-34 (-34 to -34)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2000-2019	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2020-2039	NA	NaN (NaN to NaN)	37	-37 (-37 to -37)
2040-2059	NA	NaN (NaN to NaN)	39	-39 (-39 to -39)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

King Island

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	26 (26 to 27)	-21 (-21 to -18)	16	10 (10 to 11)
2000-2019	25 (23 to 30)	-24 (-30 to -9)	16	9 (7 to 14)
2020-2039	24 (21 to 32)	-27 (-36 to -3)	13	11 (8 to 19)
2040-2059	24 (18 to 33)	-27 (-45 to 0)	10	14 (8 to 23)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (30 to 32)	-6 (-9 to -3)	16	15 (14 to 16)
2000-2019	28 (26 to 35)	-15 (-21 to 7)	16	12 (10 to 19)
2020-2039	28 (23 to 37)	-15 (-30 to 13)	14	14 (9 to 23)
2040-2059	27 (20 to 38)	-18 (-39 to 16)	12	15 (8 to 26)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	34 (34 to 35)	4 (4 to 7)	16	18 (18 to 19)
2000-2019	33 (31 to 39)	0 (-6 to 19)	16	17 (15 to 23)
2020-2039	32 (26 to 41)	-3 (-21 to 25)	16	16 (10 to 25)
2040-2059	31 (22 to 43)	-6 (-33 to 31)	15	16 (7 to 28)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Kingborough

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	16 (16 to 17)	-46 (-46 to -43)	9	7 (7 to 8)
2000-2019	20 (18 to 22)	-33 (-40 to -26)	9	11 (9 to 13)
2020-2039	25 (21 to 30)	-16 (-30 to 0)	11	14 (10 to 19)
2040-2059	30 (22 to 37)	0 (-26 to 24)	11	19 (11 to 26)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	19 (18 to 19)	-36 (-40 to -36)	9	10 (9 to 10)
2000-2019	22 (20 to 25)	-26 (-33 to -16)	9	13 (11 to 16)
2020-2039	28 (24 to 34)	-6 (-19 to 14)	12	16 (12 to 22)
2040-2059	34 (25 to 41)	14 (-16 to 37)	12	22 (13 to 29)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	24 (24 to 24)	-19 (-19 to -19)	9	15 (15 to 15)
2000-2019	30 (27 to 33)	0 (-9 to 11)	9	21 (18 to 24)
2020-2039	38 (32 to 44)	27 (7 to 47)	14	24 (18 to 30)
2040-2059	44 (34 to 54)	47 (14 to 80)	16	28 (18 to 38)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Latrobe

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2000-2019	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2020-2039	NA	NaN (NaN to NaN)	15	-15 (-15 to -15)
2040-2059	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2000-2019	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2020-2039	NA	NaN (NaN to NaN)	16	-16 (-16 to -16)
2040-2059	NA	NaN (NaN to NaN)	17	-17 (-17 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2000-2019	NA	NaN (NaN to NaN)	12	-12 (-12 to -12)
2020-2039	NA	NaN (NaN to NaN)	19	-19 (-19 to -19)
2040-2059	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Launceston

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	NA	NA
2000-2019	NA	NaN (NaN to NaN)	NA	NA
2020-2039	NA	NaN (NaN to NaN)	NA	NA
2040-2059	NA	NaN (NaN to NaN)	NA	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Meander Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	25	-25 (-25 to -25)
2000-2019	NA	NaN (NaN to NaN)	26	-26 (-26 to -26)
2020-2039	NA	NaN (NaN to NaN)	23	-23 (-23 to -23)
2040-2059	NA	NaN (NaN to NaN)	20	-20 (-20 to -20)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	25	-25 (-25 to -25)
2000-2019	NA	NaN (NaN to NaN)	26	-26 (-26 to -26)
2020-2039	NA	NaN (NaN to NaN)	25	-25 (-25 to -25)
2040-2059	NA	NaN (NaN to NaN)	21	-21 (-21 to -21)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	25	-25 (-25 to -25)
2000-2019	NA	NaN (NaN to NaN)	26	-26 (-26 to -26)
2020-2039	NA	NaN (NaN to NaN)	26	-26 (-26 to -26)
2040-2059	NA	NaN (NaN to NaN)	24	-24 (-24 to -24)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Northern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	12 (12 to 12)	-29 (-29 to -29)	38	-26 (-26 to -26)
2000-2019	13 (13 to 14)	-23 (-23 to -17)	39	-26 (-26 to -25)
2020-2039	13 (12 to 14)	-23 (-29 to -17)	36	-23 (-24 to -22)
2040-2059	13 (11 to 15)	-23 (-35 to -11)	32	-19 (-21 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	13 (13 to 13)	-23 (-23 to -23)	38	-25 (-25 to -25)
2000-2019	15 (14 to 15)	-11 (-17 to -11)	39	-24 (-25 to -24)
2020-2039	14 (13 to 16)	-17 (-23 to -5)	38	-24 (-25 to -22)
2040-2059	14 (12 to 16)	-17 (-29 to -5)	34	-20 (-22 to -18)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	15 (15 to 16)	-11 (-11 to -5)	38	-23 (-23 to -22)
2000-2019	17 (16 to 17)	0 (-5 to 0)	39	-22 (-23 to -22)
2020-2039	17 (15 to 18)	0 (-11 to 6)	39	-22 (-24 to -21)
2040-2059	16 (14 to 19)	-5 (-17 to 12)	36	-20 (-22 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Sorell

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	44 (43 to 44)	-29 (-30 to -29)	60	-16 (-17 to -16)
2000-2019	54 (51 to 56)	-12 (-17 to -9)	63	-9 (-12 to -7)
2020-2039	69 (61 to 75)	12 (-1 to 21)	67	2 (-6 to 8)
2040-2059	80 (66 to 91)	30 (7 to 47)	68	12 (-2 to 23)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	48 (47 to 48)	-22 (-24 to -22)	60	-12 (-13 to -12)
2000-2019	60 (56 to 62)	-3 (-9 to 0)	63	-3 (-7 to -1)
2020-2039	75 (66 to 81)	21 (7 to 31)	72	3 (-6 to 9)
2040-2059	89 (73 to 101)	44 (18 to 63)	78	11 (-5 to 23)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	49 (49 to 49)	-20 (-20 to -20)	60	-11 (-11 to -11)
2000-2019	62 (59 to 64)	0 (-4 to 4)	63	-1 (-4 to 1)
2020-2039	77 (68 to 84)	25 (10 to 36)	75	2 (-7 to 9)
2040-2059	92 (75 to 104)	49 (21 to 68)	83	9 (-8 to 21)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Southern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	30 (30 to 30)	-26 (-26 to -26)	20	10 (10 to 10)
2000-2019	35 (33 to 37)	-14 (-19 to -9)	21	14 (12 to 16)
2020-2039	40 (35 to 45)	-2 (-14 to 10)	22	18 (13 to 23)
2040-2059	43 (35 to 52)	5 (-14 to 27)	19	24 (16 to 33)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	32 (32 to 32)	-21 (-21 to -21)	20	12 (12 to 12)
2000-2019	38 (36 to 40)	-7 (-12 to -2)	21	17 (15 to 19)
2020-2039	43 (37 to 48)	5 (-9 to 18)	23	20 (14 to 25)
2040-2059	46 (38 to 56)	13 (-7 to 37)	22	24 (16 to 34)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	35 (35 to 36)	-14 (-14 to -12)	20	15 (15 to 16)
2000-2019	41 (39 to 43)	0 (-4 to 5)	21	20 (18 to 22)
2020-2039	47 (41 to 53)	15 (0 to 30)	24	23 (17 to 29)
2040-2059	51 (41 to 63)	25 (0 to 54)	24	27 (17 to 39)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Tasman

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2000-2019	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2020-2039	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2040-2059	NA	NaN (NaN to NaN)	13	-13 (-13 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2000-2019	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2020-2039	NA	NaN (NaN to NaN)	15	-15 (-15 to -15)
2040-2059	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2000-2019	NA	NaN (NaN to NaN)	14	-14 (-14 to -14)
2020-2039	NA	NaN (NaN to NaN)	16	-16 (-16 to -16)
2040-2059	NA	NaN (NaN to NaN)	15	-15 (-15 to -15)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

Waratah/Wynyard

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (6 to 6)	-40 (-40 to -40)	25	-19 (-19 to -19)
2000-2019	8 (6 to 8)	-19 (-40 to -19)	26	-18 (-20 to -18)
2020-2039	8 (7 to 8)	-19 (-30 to -19)	24	-16 (-17 to -16)
2040-2059	8 (7 to 9)	-19 (-30 to -9)	22	-14 (-15 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (7 to 7)	-30 (-30 to -30)	25	-18 (-18 to -18)
2000-2019	8 (7 to 9)	-19 (-30 to -9)	26	-18 (-19 to -17)
2020-2039	9 (8 to 9)	-9 (-19 to -9)	26	-17 (-18 to -17)
2040-2059	9 (8 to 10)	-9 (-19 to 0)	24	-15 (-16 to -14)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (9 to 9)	-9 (-9 to -9)	25	-16 (-16 to -16)
2000-2019	10 (9 to 10)	0 (-9 to 0)	26	-16 (-17 to -16)
2020-2039	10 (10 to 11)	0 (0 to 11)	27	-17 (-17 to -16)
2040-2059	10 (9 to 12)	0 (-9 to 20)	25	-15 (-16 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

West Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (42 to 43)	-4 (-6 to -4)	26	17 (16 to 17)
2000-2019	38 (34 to 42)	-15 (-24 to -6)	27	11 (7 to 15)
2020-2039	32 (27 to 38)	-28 (-40 to -15)	21	11 (6 to 17)
2040-2059	26 (24 to 35)	-42 (-46 to -22)	19	7 (5 to 16)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	46 (46 to 47)	3 (3 to 5)	26	20 (20 to 21)
2000-2019	42 (37 to 46)	-6 (-17 to 3)	27	15 (10 to 19)
2020-2039	34 (30 to 41)	-24 (-33 to -8)	22	12 (8 to 19)
2040-2059	28 (26 to 38)	-37 (-42 to -15)	20	8 (6 to 18)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	50 (50 to 51)	12 (12 to 14)	26	24 (24 to 25)
2000-2019	45 (40 to 49)	0 (-11 to 9)	27	18 (13 to 22)
2020-2039	37 (32 to 44)	-17 (-28 to -2)	23	14 (9 to 21)
2040-2059	32 (28 to 41)	-28 (-37 to -8)	21	11 (7 to 20)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.1 Projected AT personnel requirements – continued from previous page

West Tamar

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2000-2019	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2020-2039	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2040-2059	NA	NaN (NaN to NaN)	27	-27 (-27 to -27)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2000-2019	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2020-2039	NA	NaN (NaN to NaN)	31	-31 (-31 to -31)
2040-2059	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	NA	NaN (NaN to NaN)	28	-28 (-28 to -28)
2000-2019	NA	NaN (NaN to NaN)	29	-29 (-29 to -29)
2020-2039	NA	NaN (NaN to NaN)	32	-32 (-32 to -32)
2040-2059	NA	NaN (NaN to NaN)	33	-33 (-33 to -33)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.1 Projected AT personnel requirements – continued from previous page

Tasmania

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	390 (387 to 394)	-24 (-24 to -23)	530	-140 (-143 to -136)
2000-2019	427 (397 to 460)	-17 (-22 to -10)	547	-120 (-150 to -87)
2020-2039	449 (393 to 528)	-12 (-23 to 3)	508	-59 (-115 to 20)
2040-2059	458 (373 to 585)	-11 (-27 to 14)	458	0 (-85 to 127)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	434 (429 to 438)	-15 (-16 to -14)	530	-96 (-101 to -92)
2000-2019	472 (441 to 512)	-8 (-14 to 0)	547	-75 (-106 to -35)
2020-2039	496 (433 to 586)	-3 (-15 to 14)	542	-46 (-109 to 44)
2040-2059	507 (412 to 648)	-1 (-19 to 26)	511	-4 (-99 to 137)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	470 (466 to 476)	-8 (-9 to -7)	530	-60 (-64 to -54)
2000-2019	515 (480 to 554)	0 (-6 to 8)	547	-32 (-67 to 7)
2020-2039	538 (470 to 636)	5 (-8 to 24)	577	-39 (-107 to 59)
2040-2059	554 (446 to 708)	8 (-13 to 38)	572	-18 (-126 to 136)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Table E.2: Projected SES personnel requirements in each municipality to 2100. Projections were based on the assumption that current personnel levels were adequate to manage *high incident year*.

Break O'Day

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-83 (-83 to -83)	16	-14 (-14 to -14)
2000-2019	2 (2 to 2)	-83 (-83 to -83)	16	-14 (-14 to -14)
2020-2039	3 (2 to 3)	-75 (-83 to -75)	15	-12 (-13 to -12)
2040-2059	3 (2 to 4)	-75 (-83 to -66)	13	-10 (-11 to -9)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	5 (5 to 6)	-58 (-58 to -50)	16	-11 (-11 to -10)
2000-2019	6 (5 to 6)	-50 (-58 to -50)	16	-10 (-11 to -10)
2020-2039	8 (6 to 12)	-33 (-50 to 0)	15	-7 (-9 to -3)
2040-2059	9 (7 to 12)	-25 (-41 to 0)	14	-5 (-7 to -2)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (9 to 13)	-8 (-25 to 9)	16	-5 (-7 to -3)
2000-2019	12 (10 to 13)	0 (-16 to 9)	16	-4 (-6 to -3)
2020-2039	18 (13 to 29)	50 (9 to 142)	16	2 (-3 to 13)
2040-2059	18 (14 to 24)	50 (17 to 100)	17	1 (-3 to 7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Brighton

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-66 (-66 to -66)	12	-10 (-10 to -10)
2000-2019	2 (2 to 2)	-66 (-66 to -66)	12	-10 (-10 to -10)
2020-2039	3 (3 to 3)	-50 (-50 to -50)	14	-11 (-11 to -11)
2040-2059	2 (2 to 2)	-66 (-66 to -66)	15	-13 (-13 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 3)	-50 (-50 to -50)	12	-9 (-9 to -9)
2000-2019	3 (3 to 3)	-50 (-50 to -50)	12	-9 (-9 to -9)
2020-2039	5 (5 to 5)	-16 (-16 to -16)	15	-10 (-10 to -10)
2040-2059	4 (4 to 4)	-33 (-33 to -33)	16	-12 (-12 to -12)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	5 (5 to 6)	-16 (-16 to 0)	12	-7 (-7 to -6)
2000-2019	6 (6 to 6)	NA	12	-6 (-6 to -6)
2020-2039	10 (10 to 11)	67 (67 to 84)	15	-5 (-5 to -4)
2040-2059	9 (9 to 9)	50 (50 to 50)	16	-7 (-7 to -7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

Burnie

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1 (1 to 1)	-88 (-88 to -88)	30	-29 (-29 to -29)
2000-2019	2 (1 to 2)	-77 (-88 to -77)	31	-29 (-30 to -29)
2020-2039	2 (2 to 2)	-77 (-77 to -77)	31	-29 (-29 to -29)
2040-2059	2 (2 to 2)	-77 (-77 to -77)	29	-27 (-27 to -27)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 3)	-66 (-66 to -66)	30	-27 (-27 to -27)
2000-2019	3 (3 to 3)	-66 (-66 to -66)	31	-28 (-28 to -28)
2020-2039	3 (3 to 3)	-66 (-66 to -66)	32	-29 (-29 to -29)
2040-2059	4 (4 to 4)	-55 (-55 to -55)	30	-26 (-26 to -26)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	8 (8 to 8)	-11 (-11 to -11)	30	-22 (-22 to -22)
2000-2019	9 (9 to 9)	NA	31	-22 (-22 to -22)
2020-2039	10 (9 to 10)	12 (0 to 12)	33	-23 (-24 to -23)
2040-2059	11 (10 to 11)	23 (12 to 23)	33	-22 (-23 to -22)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

Central Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1 (1 to 2)	-93 (-93 to -86)	25	-24 (-24 to -23)
2000-2019	2 (2 to 2)	-86 (-86 to -86)	26	-24 (-24 to -24)
2020-2039	2 (2 to 2)	-86 (-86 to -86)	27	-25 (-25 to -25)
2040-2059	2 (2 to 2)	-86 (-86 to -86)	25	-23 (-23 to -23)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (4 to 4)	-73 (-73 to -73)	25	-21 (-21 to -21)
2000-2019	4 (4 to 5)	-73 (-73 to -66)	26	-22 (-22 to -21)
2020-2039	5 (4 to 5)	-66 (-73 to -66)	29	-24 (-25 to -24)
2040-2059	5 (5 to 6)	-66 (-66 to -60)	28	-23 (-23 to -22)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	13 (13 to 14)	-13 (-13 to -6)	25	-12 (-12 to -11)
2000-2019	15 (14 to 16)	0 (-6 to 7)	26	-11 (-12 to -10)
2020-2039	17 (17 to 19)	14 (14 to 27)	30	-13 (-13 to -11)
2040-2059	20 (19 to 21)	34 (27 to 40)	31	-11 (-12 to -10)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Central Highlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (8 to 10)	-80 (-82 to -78)	7	2 (1 to 3)
2000-2019	9 (9 to 11)	-80 (-80 to -76)	7	2 (2 to 4)
2020-2039	11 (9 to 16)	-76 (-80 to -65)	7	4 (2 to 9)
2040-2059	12 (10 to 17)	-74 (-78 to -63)	6	6 (4 to 11)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	15 (14 to 18)	-68 (-70 to -61)	7	8 (7 to 11)
2000-2019	17 (15 to 19)	-63 (-68 to -59)	7	10 (8 to 12)
2020-2039	21 (17 to 31)	-55 (-63 to -34)	7	14 (10 to 24)
2040-2059	23 (18 to 36)	-51 (-61 to -23)	6	17 (12 to 30)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	42 (38 to 51)	-10 (-19 to 9)	7	35 (31 to 44)
2000-2019	47 (43 to 54)	0 (-8 to 15)	7	40 (36 to 47)
2020-2039	60 (49 to 97)	28 (5 to 107)	8	52 (41 to 89)
2040-2059	65 (53 to 95)	39 (13 to 103)	8	57 (45 to 87)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Circular Head

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (8 to 10)	-50 (-55 to -44)	28	-19 (-20 to -18)
2000-2019	10 (9 to 11)	-44 (-50 to -38)	29	-19 (-20 to -18)
2020-2039	11 (10 to 12)	-38 (-44 to -33)	25	-14 (-15 to -13)
2040-2059	11 (10 to 13)	-38 (-44 to -27)	23	-12 (-13 to -10)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	12 (11 to 13)	-33 (-38 to -27)	28	-16 (-17 to -15)
2000-2019	13 (11 to 14)	-27 (-38 to -22)	29	-16 (-18 to -15)
2020-2039	14 (13 to 15)	-22 (-27 to -16)	25	-11 (-12 to -10)
2040-2059	15 (14 to 17)	-16 (-22 to -5)	23	-8 (-9 to -6)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (15 to 18)	-5 (-16 to 0)	28	-11 (-13 to -10)
2000-2019	18 (16 to 20)	0 (-11 to 12)	29	-11 (-13 to -9)
2020-2039	20 (18 to 22)	12 (0 to 23)	27	-7 (-9 to -5)
2040-2059	21 (19 to 25)	17 (6 to 39)	25	-4 (-6 to 0)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Clarence

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-75 (-75 to -75)	18	-16 (-16 to -16)
2000-2019	2 (2 to 2)	-75 (-75 to -75)	18	-16 (-16 to -16)
2020-2039	3 (2 to 3)	-62 (-75 to -62)	19	-16 (-17 to -16)
2040-2059	3 (3 to 3)	-62 (-62 to -62)	18	-15 (-15 to -15)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (3 to 4)	-50 (-62 to -50)	18	-14 (-15 to -14)
2000-2019	4 (4 to 4)	-50 (-50 to -50)	18	-14 (-14 to -14)
2020-2039	5 (4 to 6)	-37 (-50 to -25)	21	-16 (-17 to -15)
2040-2059	5 (5 to 6)	-37 (-37 to -25)	20	-15 (-15 to -14)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (6 to 7)	-12 (-25 to -12)	18	-11 (-12 to -11)
2000-2019	8 (7 to 8)	0 (-12 to 0)	18	-10 (-11 to -10)
2020-2039	9 (8 to 11)	13 (0 to 38)	21	-12 (-13 to -10)
2040-2059	10 (9 to 11)	25 (13 to 38)	21	-11 (-12 to -10)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Derwent Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 3)	-87 (-87 to -87)	15	-12 (-12 to -12)
2000-2019	3 (3 to 3)	-87 (-87 to -87)	15	-12 (-12 to -12)
2020-2039	3 (3 to 3)	-87 (-87 to -87)	14	-11 (-11 to -11)
2040-2059	3 (3 to 3)	-87 (-87 to -87)	12	-9 (-9 to -9)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	8 (8 to 8)	-66 (-66 to -66)	15	-7 (-7 to -7)
2000-2019	8 (8 to 9)	-66 (-66 to -62)	15	-7 (-7 to -6)
2020-2039	9 (8 to 11)	-62 (-66 to -54)	14	-5 (-6 to -3)
2040-2059	10 (9 to 12)	-58 (-62 to -50)	13	-3 (-4 to -1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	22 (22 to 23)	-8 (-8 to -4)	15	7 (7 to 8)
2000-2019	24 (23 to 26)	0 (-4 to 9)	15	9 (8 to 11)
2020-2039	28 (25 to 32)	17 (5 to 34)	14	14 (11 to 18)
2040-2059	31 (28 to 36)	30 (17 to 50)	14	17 (14 to 22)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Devonport

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 4)	-83 (-83 to -77)	25	-22 (-22 to -21)
2000-2019	3 (3 to 3)	-83 (-83 to -83)	26	-23 (-23 to -23)
2020-2039	4 (4 to 4)	-77 (-77 to -77)	26	-22 (-22 to -22)
2040-2059	5 (4 to 5)	-72 (-77 to -72)	25	-20 (-21 to -20)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (9 to 9)	-50 (-50 to -50)	25	-16 (-16 to -16)
2000-2019	9 (9 to 9)	-50 (-50 to -50)	26	-17 (-17 to -17)
2020-2039	12 (12 to 12)	-33 (-33 to -33)	27	-15 (-15 to -15)
2040-2059	13 (13 to 13)	-27 (-27 to -27)	26	-13 (-13 to -13)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	18 (18 to 18)	NA	25	-7 (-7 to -7)
2000-2019	18 (18 to 18)	NA	26	-8 (-8 to -8)
2020-2039	22 (22 to 22)	23 (23 to 23)	28	-6 (-6 to -6)
2040-2059	25 (24 to 25)	39 (34 to 39)	27	-2 (-3 to -2)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Dorset

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (4 to 4)	-66 (-66 to -66)	10	-6 (-6 to -6)
2000-2019	4 (4 to 4)	-66 (-66 to -66)	10	-6 (-6 to -6)
2020-2039	5 (4 to 5)	-58 (-66 to -58)	11	-6 (-7 to -6)
2040-2059	5 (4 to 5)	-58 (-66 to -58)	9	-4 (-5 to -4)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (6 to 7)	-41 (-50 to -41)	10	-3 (-4 to -3)
2000-2019	7 (7 to 8)	-41 (-41 to -33)	10	-3 (-3 to -2)
2020-2039	8 (7 to 9)	-33 (-41 to -25)	11	-3 (-4 to -2)
2040-2059	8 (7 to 10)	-33 (-41 to -16)	10	-2 (-3 to 0)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (10 to 11)	-8 (-16 to -8)	10	1 (0 to 1)
2000-2019	12 (11 to 13)	0 (-8 to 9)	10	2 (1 to 3)
2020-2039	14 (12 to 17)	17 (0 to 42)	11	3 (1 to 6)
2040-2059	15 (13 to 18)	25 (9 to 50)	10	5 (3 to 8)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Flinders

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (1 to 2)	-66 (-83 to -66)	14	-12 (-13 to -12)
2000-2019	2 (2 to 2)	-66 (-66 to -66)	14	-12 (-12 to -12)
2020-2039	2 (2 to 2)	-66 (-66 to -66)	11	-9 (-9 to -9)
2040-2059	2 (2 to 2)	-66 (-66 to -66)	7	-5 (-5 to -5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 3)	-50 (-50 to -50)	14	-11 (-11 to -11)
2000-2019	3 (3 to 4)	-50 (-50 to -33)	14	-11 (-11 to -10)
2020-2039	4 (3 to 4)	-33 (-50 to -33)	12	-8 (-9 to -8)
2040-2059	4 (3 to 5)	-33 (-50 to -16)	10	-6 (-7 to -5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (5 to 6)	0 (-16 to 0)	14	-8 (-9 to -8)
2000-2019	6 (6 to 6)	NA	14	-8 (-8 to -8)
2020-2039	6 (5 to 7)	0 (-16 to 17)	12	-6 (-7 to -5)
2040-2059	7 (5 to 8)	17 (-16 to 34)	11	-4 (-6 to -3)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

George Town

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (3 to 4)	-60 (-70 to -60)	8	-4 (-5 to -4)
2000-2019	4 (4 to 4)	-60 (-60 to -60)	8	-4 (-4 to -4)
2020-2039	5 (5 to 5)	-50 (-50 to -50)	7	-2 (-2 to -2)
2040-2059	5 (5 to 6)	-50 (-50 to -40)	6	-1 (-1 to 0)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (6 to 7)	-30 (-40 to -30)	8	-1 (-2 to -1)
2000-2019	7 (7 to 8)	-30 (-30 to -19)	8	-1 (-1 to 0)
2020-2039	9 (8 to 10)	-9 (-19 to 0)	8	1 (0 to 2)
2040-2059	10 (9 to 12)	0 (-9 to 20)	7	3 (2 to 5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (9 to 10)	-9 (-9 to 0)	8	1 (1 to 2)
2000-2019	10 (10 to 11)	0 (0 to 11)	8	2 (2 to 3)
2020-2039	12 (12 to 14)	20 (20 to 40)	8	4 (4 to 6)
2040-2059	14 (13 to 16)	40 (31 to 61)	7	7 (6 to 9)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Glamorgan/Spring Bay

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 4)	-70 (-70 to -60)	9	-6 (-6 to -5)
2000-2019	4 (3 to 4)	-60 (-70 to -60)	9	-5 (-6 to -5)
2020-2039	4 (4 to 5)	-60 (-60 to -50)	7	-3 (-3 to -2)
2040-2059	4 (4 to 5)	-60 (-60 to -50)	6	-2 (-2 to -1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (6 to 7)	-40 (-40 to -30)	9	-3 (-3 to -2)
2000-2019	6 (6 to 7)	-40 (-40 to -30)	9	-3 (-3 to -2)
2020-2039	7 (6 to 9)	-30 (-40 to -9)	7	0 (-1 to 2)
2040-2059	8 (6 to 9)	-19 (-40 to -9)	6	2 (0 to 3)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	10 (9 to 11)	0 (-9 to 11)	9	1 (0 to 2)
2000-2019	10 (9 to 11)	0 (-9 to 11)	9	1 (0 to 2)
2020-2039	12 (10 to 14)	20 (0 to 40)	8	4 (2 to 6)
2040-2059	12 (10 to 14)	20 (0 to 40)	7	5 (3 to 7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Glenorchy

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1 (1 to 1)	-83 (-83 to -83)	8	-7 (-7 to -7)
2000-2019	1 (1 to 1)	-83 (-83 to -83)	8	-7 (-7 to -7)
2020-2039	1 (1 to 1)	-83 (-83 to -83)	8	-7 (-7 to -7)
2040-2059	1 (1 to 1)	-83 (-83 to -83)	8	-7 (-7 to -7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-66 (-66 to -66)	8	-6 (-6 to -6)
2000-2019	2 (2 to 2)	-66 (-66 to -66)	8	-6 (-6 to -6)
2020-2039	2 (2 to 2)	-66 (-66 to -66)	8	-6 (-6 to -6)
2040-2059	3 (3 to 3)	-50 (-50 to -50)	8	-5 (-5 to -5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	5 (5 to 5)	-16 (-16 to -16)	8	-3 (-3 to -3)
2000-2019	6 (6 to 6)	NA	8	-2 (-2 to -2)
2020-2039	7 (7 to 7)	17 (17 to 17)	9	-2 (-2 to -2)
2040-2059	8 (8 to 8)	34 (34 to 34)	8	NA
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Hobart

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (2 to 3)	-90 (-93 to -90)	28	-25 (-26 to -25)
2000-2019	3 (3 to 3)	-90 (-90 to -90)	29	-26 (-26 to -26)
2020-2039	3 (3 to 3)	-90 (-90 to -90)	28	-25 (-25 to -25)
2040-2059	4 (3 to 4)	-86 (-90 to -86)	26	-22 (-23 to -22)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (6 to 6)	-80 (-80 to -80)	28	-22 (-22 to -22)
2000-2019	7 (7 to 7)	-76 (-76 to -76)	29	-22 (-22 to -22)
2020-2039	8 (8 to 8)	-73 (-73 to -73)	31	-23 (-23 to -23)
2040-2059	10 (9 to 10)	-66 (-70 to -66)	30	-20 (-21 to -20)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	27 (26 to 27)	-9 (-13 to -9)	28	-1 (-2 to -1)
2000-2019	30 (30 to 30)	NA	29	1 (1 to 1)
2020-2039	35 (35 to 35)	17 (17 to 17)	33	2 (2 to 2)
2040-2059	42 (41 to 43)	40 (37 to 44)	32	10 (9 to 11)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

Huon Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (6 to 8)	-80 (-83 to -77)	15	-8 (-9 to -7)
2000-2019	8 (7 to 9)	-77 (-80 to -75)	15	-7 (-8 to -6)
2020-2039	10 (9 to 11)	-72 (-75 to -69)	16	-6 (-7 to -5)
2040-2059	12 (10 to 14)	-66 (-72 to -61)	15	-3 (-5 to -1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (16 to 18)	-52 (-55 to -50)	15	2 (1 to 3)
2000-2019	20 (18 to 22)	-44 (-50 to -38)	15	5 (3 to 7)
2020-2039	25 (23 to 27)	-30 (-36 to -25)	17	8 (6 to 10)
2040-2059	30 (27 to 33)	-16 (-25 to -8)	17	13 (10 to 16)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	30 (28 to 32)	-16 (-22 to -11)	15	15 (13 to 17)
2000-2019	36 (34 to 39)	0 (-5 to 9)	15	21 (19 to 24)
2020-2039	46 (43 to 50)	28 (20 to 39)	18	28 (25 to 32)
2040-2059	54 (50 to 60)	50 (39 to 67)	18	36 (32 to 42)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

Kentish

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	5 (5 to 5)	-54 (-54 to -54)	16	-11 (-11 to -11)
2000-2019	6 (6 to 7)	-45 (-45 to -36)	16	-10 (-10 to -9)
2020-2039	7 (7 to 8)	-36 (-36 to -27)	16	-9 (-9 to -8)
2040-2059	8 (8 to 9)	-27 (-27 to -18)	15	-7 (-7 to -6)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (7 to 8)	-36 (-36 to -27)	16	-9 (-9 to -8)
2000-2019	9 (8 to 9)	-18 (-27 to -18)	16	-7 (-8 to -7)
2020-2039	10 (9 to 11)	-9 (-18 to 0)	18	-8 (-9 to -7)
2040-2059	12 (11 to 13)	10 (0 to 19)	19	-7 (-8 to -6)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (9 to 10)	-18 (-18 to -9)	16	-7 (-7 to -6)
2000-2019	11 (11 to 12)	0 (0 to 10)	16	-5 (-5 to -4)
2020-2039	14 (13 to 15)	28 (19 to 37)	20	-6 (-7 to -5)
2040-2059	16 (14 to 18)	46 (28 to 64)	20	-4 (-6 to -2)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

King Island

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1 (1 to 1)	-75 (-75 to -75)	9	-8 (-8 to -8)
2000-2019	1 (1 to 1)	-75 (-75 to -75)	9	-8 (-8 to -8)
2020-2039	1 (1 to 1)	-75 (-75 to -75)	7	-6 (-6 to -6)
2040-2059	1 (1 to 1)	-75 (-75 to -75)	6	-5 (-5 to -5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-50 (-50 to -50)	9	-7 (-7 to -7)
2000-2019	2 (2 to 2)	-50 (-50 to -50)	9	-7 (-7 to -7)
2020-2039	2 (2 to 2)	-50 (-50 to -50)	8	-6 (-6 to -6)
2040-2059	2 (2 to 3)	-50 (-50 to -25)	7	-5 (-5 to -4)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (4 to 4)	NA	9	-5 (-5 to -5)
2000-2019	4 (4 to 5)	0 (0 to 25)	9	-5 (-5 to -4)
2020-2039	5 (4 to 5)	25 (0 to 25)	8	-3 (-4 to -3)
2040-2059	5 (5 to 6)	25 (25 to 50)	7	-2 (-2 to -1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

Kingborough

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (2 to 3)	-75 (-83 to -75)	21	-18 (-19 to -18)
2000-2019	3 (3 to 3)	-75 (-75 to -75)	22	-19 (-19 to -19)
2020-2039	3 (3 to 4)	-75 (-75 to -66)	26	-23 (-23 to -22)
2040-2059	4 (4 to 4)	-66 (-66 to -66)	25	-21 (-21 to -21)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (5 to 6)	-50 (-58 to -50)	21	-15 (-16 to -15)
2000-2019	7 (6 to 7)	-41 (-50 to -41)	22	-15 (-16 to -15)
2020-2039	8 (7 to 8)	-33 (-41 to -33)	28	-20 (-21 to -20)
2040-2059	10 (9 to 10)	-16 (-25 to -16)	29	-19 (-20 to -19)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	10 (9 to 11)	-16 (-25 to -8)	21	-11 (-12 to -10)
2000-2019	12 (11 to 12)	0 (-8 to 0)	22	-10 (-11 to -10)
2020-2039	14 (13 to 14)	17 (9 to 17)	30	-16 (-17 to -16)
2040-2059	18 (16 to 18)	50 (34 to 50)	35	-17 (-19 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

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Table E.2 Projected SES personnel requirements – continued from previous page

Latrobe

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1 (1 to 1)	-85 (-85 to -85)	4	-3 (-3 to -3)
2000-2019	1 (1 to 2)	-85 (-85 to -71)	4	-3 (-3 to -2)
2020-2039	2 (2 to 2)	-71 (-71 to -71)	4	-2 (-2 to -2)
2040-2059	2 (2 to 2)	-71 (-71 to -71)	4	-2 (-2 to -2)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (2 to 3)	-57 (-71 to -57)	4	-1 (-2 to -1)
2000-2019	3 (3 to 3)	-57 (-57 to -57)	4	-1 (-1 to -1)
2020-2039	4 (3 to 4)	-42 (-57 to -42)	5	-1 (-2 to -1)
2040-2059	4 (4 to 5)	-42 (-42 to -28)	5	-1 (-1 to 0)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (6 to 6)	-14 (-14 to -14)	4	2 (2 to 2)
2000-2019	7 (7 to 8)	0 (0 to 15)	4	3 (3 to 4)
2020-2039	10 (9 to 11)	43 (29 to 58)	6	4 (3 to 5)
2040-2059	12 (11 to 13)	72 (58 to 86)	6	6 (5 to 7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Launceston

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 4)	-78 (-78 to -71)	45	-42 (-42 to -41)
2000-2019	4 (3 to 4)	-71 (-78 to -71)	47	-43 (-44 to -43)
2020-2039	5 (4 to 6)	-64 (-71 to -57)	50	-45 (-46 to -44)
2040-2059	5 (5 to 6)	-64 (-64 to -57)	50	-45 (-45 to -44)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (6 to 8)	-50 (-57 to -42)	45	-38 (-39 to -37)
2000-2019	8 (7 to 9)	-42 (-50 to -35)	47	-39 (-40 to -38)
2020-2039	11 (9 to 13)	-21 (-35 to -7)	52	-41 (-43 to -39)
2040-2059	12 (10 to 13)	-14 (-28 to -7)	52	-40 (-42 to -39)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	12 (11 to 14)	-14 (-21 to 0)	45	-33 (-34 to -31)
2000-2019	14 (12 to 15)	0 (-14 to 8)	47	-33 (-35 to -32)
2020-2039	19 (17 to 22)	36 (22 to 58)	53	-34 (-36 to -31)
2040-2059	21 (19 to 23)	50 (36 to 65)	55	-34 (-36 to -32)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Meander Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (4 to 5)	-78 (-78 to -73)	27	-23 (-23 to -22)
2000-2019	5 (5 to 5)	-73 (-73 to -73)	28	-23 (-23 to -23)
2020-2039	5 (5 to 6)	-73 (-73 to -68)	25	-20 (-20 to -19)
2040-2059	6 (5 to 7)	-68 (-73 to -63)	22	-16 (-17 to -15)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	8 (7 to 8)	-57 (-63 to -57)	27	-19 (-20 to -19)
2000-2019	9 (8 to 9)	-52 (-57 to -52)	28	-19 (-20 to -19)
2020-2039	10 (9 to 11)	-47 (-52 to -42)	27	-17 (-18 to -16)
2040-2059	10 (9 to 12)	-47 (-52 to -36)	23	-13 (-14 to -11)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (16 to 18)	-10 (-15 to -5)	27	-10 (-11 to -9)
2000-2019	19 (18 to 20)	0 (-5 to 6)	28	-9 (-10 to -8)
2020-2039	22 (19 to 26)	16 (0 to 37)	27	-5 (-8 to -1)
2040-2059	23 (20 to 27)	22 (6 to 43)	26	-3 (-6 to 1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Northern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	8 (7 to 9)	-46 (-53 to -40)	15	-7 (-8 to -6)
2000-2019	9 (8 to 10)	-40 (-46 to -33)	15	-6 (-7 to -5)
2020-2039	11 (9 to 15)	-26 (-40 to 0)	15	-4 (-6 to 0)
2040-2059	11 (9 to 14)	-26 (-40 to -6)	13	-2 (-4 to 1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (10 to 13)	-26 (-33 to -13)	15	-4 (-5 to -2)
2000-2019	12 (11 to 14)	-19 (-26 to -6)	15	-3 (-4 to -1)
2020-2039	15 (12 to 22)	0 (-19 to 47)	16	-1 (-4 to 6)
2040-2059	16 (12 to 23)	7 (-19 to 54)	13	3 (-1 to 10)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	14 (12 to 16)	-6 (-19 to 7)	15	-1 (-3 to 1)
2000-2019	15 (13 to 18)	0 (-13 to 20)	15	0 (-2 to 3)
2020-2039	20 (15 to 30)	34 (0 to 100)	16	4 (-1 to 14)
2040-2059	20 (15 to 30)	34 (0 to 100)	14	6 (1 to 16)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Sorell

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-96 (-96 to -96)	1	1 (1 to 1)
2000-2019	2 (2 to 2)	-96 (-96 to -96)	1	1 (1 to 1)
2020-2039	2 (2 to 2)	-96 (-96 to -96)	1	1 (1 to 1)
2040-2059	2 (2 to 2)	-96 (-96 to -96)	1	1 (1 to 1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	5 (5 to 5)	-91 (-91 to -91)	1	4 (4 to 4)
2000-2019	6 (5 to 6)	-89 (-91 to -89)	1	5 (4 to 5)
2020-2039	7 (7 to 7)	-87 (-87 to -87)	1	6 (6 to 6)
2040-2059	8 (8 to 9)	-86 (-86 to -84)	1	7 (7 to 8)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	54 (51 to 56)	-6 (-12 to -3)	1	53 (50 to 55)
2000-2019	58 (57 to 60)	0 (-1 to 4)	1	57 (56 to 59)
2020-2039	73 (68 to 78)	26 (18 to 35)	1	72 (67 to 77)
2040-2059	85 (80 to 91)	47 (38 to 57)	1	84 (79 to 90)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Southern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	8 (7 to 9)	-60 (-65 to -55)	16	-8 (-9 to -7)
2000-2019	9 (8 to 11)	-55 (-60 to -44)	16	-7 (-8 to -5)
2020-2039	11 (9 to 14)	-44 (-55 to -30)	17	-6 (-8 to -3)
2040-2059	12 (10 to 16)	-40 (-50 to -19)	16	-4 (-6 to 0)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	12 (11 to 13)	-40 (-44 to -35)	16	-4 (-5 to -3)
2000-2019	14 (12 to 17)	-30 (-40 to -15)	16	-2 (-4 to 1)
2020-2039	17 (14 to 23)	-15 (-30 to 15)	18	-1 (-4 to 5)
2040-2059	19 (16 to 24)	-5 (-19 to 20)	18	1 (-2 to 6)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (16 to 20)	-15 (-19 to 0)	16	1 (0 to 4)
2000-2019	20 (18 to 26)	0 (-9 to 31)	16	4 (2 to 10)
2020-2039	26 (22 to 37)	31 (11 to 86)	19	7 (3 to 18)
2040-2059	29 (24 to 39)	45 (20 to 95)	19	10 (5 to 20)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Tasman

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-86 (-86 to -86)	13	-11 (-11 to -11)
2000-2019	3 (3 to 3)	-80 (-80 to -80)	13	-10 (-10 to -10)
2020-2039	3 (3 to 3)	-80 (-80 to -80)	12	-9 (-9 to -9)
2040-2059	3 (3 to 3)	-80 (-80 to -80)	10	-7 (-7 to -7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (6 to 6)	-60 (-60 to -60)	13	-7 (-7 to -7)
2000-2019	6 (6 to 6)	-60 (-60 to -60)	13	-7 (-7 to -7)
2020-2039	7 (7 to 8)	-53 (-53 to -46)	13	-6 (-6 to -5)
2040-2059	8 (8 to 9)	-46 (-46 to -40)	13	-5 (-5 to -4)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	14 (14 to 14)	-6 (-6 to -6)	13	1 (1 to 1)
2000-2019	15 (15 to 16)	0 (0 to 7)	13	2 (2 to 3)
2020-2039	18 (18 to 19)	20 (20 to 27)	15	3 (3 to 4)
2040-2059	21 (20 to 21)	40 (34 to 40)	14	7 (6 to 7)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Waratah/Wynyard

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-84 (-84 to -84)	20	-18 (-18 to -18)
2000-2019	2 (2 to 2)	-84 (-84 to -84)	21	-19 (-19 to -19)
2020-2039	2 (2 to 3)	-84 (-84 to -76)	21	-19 (-19 to -18)
2040-2059	3 (2 to 3)	-76 (-84 to -76)	20	-17 (-18 to -17)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 3)	-76 (-76 to -76)	20	-17 (-17 to -17)
2000-2019	3 (3 to 4)	-76 (-76 to -69)	21	-18 (-18 to -17)
2020-2039	4 (3 to 4)	-69 (-76 to -69)	22	-18 (-19 to -18)
2040-2059	4 (4 to 5)	-69 (-69 to -61)	21	-17 (-17 to -16)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (11 to 12)	-15 (-15 to -7)	20	-9 (-9 to -8)
2000-2019	13 (12 to 13)	0 (-7 to 0)	21	-8 (-9 to -8)
2020-2039	14 (14 to 15)	8 (8 to 16)	24	-10 (-10 to -9)
2040-2059	16 (15 to 17)	24 (16 to 31)	22	-6 (-7 to -5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

West Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3 (3 to 4)	-81 (-81 to -75)	23	-20 (-20 to -19)
2000-2019	3 (3 to 4)	-81 (-81 to -75)	24	-21 (-21 to -20)
2020-2039	4 (3 to 4)	-75 (-81 to -75)	18	-14 (-15 to -14)
2040-2059	4 (3 to 4)	-75 (-81 to -75)	16	-12 (-13 to -12)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (6 to 7)	-62 (-62 to -56)	23	-17 (-17 to -16)
2000-2019	6 (6 to 7)	-62 (-62 to -56)	24	-18 (-18 to -17)
2020-2039	7 (6 to 8)	-56 (-62 to -50)	18	-11 (-12 to -10)
2040-2059	7 (6 to 8)	-56 (-62 to -50)	16	-9 (-10 to -8)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	16 (14 to 17)	0 (-12 to 7)	23	-7 (-9 to -6)
2000-2019	16 (14 to 18)	0 (-12 to 13)	24	-8 (-10 to -6)
2020-2039	16 (15 to 19)	0 (-6 to 19)	19	-3 (-4 to 0)
2040-2059	17 (16 to 20)	7 (0 to 25)	17	0 (-1 to 3)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

West Tamar

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (7 to 8)	-56 (-56 to -50)	19	-12 (-12 to -11)
2000-2019	8 (8 to 8)	-50 (-50 to -50)	19	-11 (-11 to -11)
2020-2039	10 (9 to 10)	-37 (-43 to -37)	18	-8 (-9 to -8)
2040-2059	11 (10 to 12)	-31 (-37 to -25)	16	-5 (-6 to -4)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	10 (10 to 10)	-37 (-37 to -37)	19	-9 (-9 to -9)
2000-2019	11 (10 to 11)	-31 (-37 to -31)	19	-8 (-9 to -8)
2020-2039	13 (13 to 14)	-18 (-18 to -12)	19	-6 (-6 to -5)
2040-2059	15 (14 to 16)	-6 (-12 to 0)	17	-2 (-3 to -1)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	15 (15 to 16)	-6 (-6 to 0)	19	-4 (-4 to -3)
2000-2019	16 (16 to 17)	0 (0 to 7)	19	-3 (-3 to -2)
2020-2039	20 (19 to 22)	25 (19 to 38)	20	0 (-1 to 2)
2040-2059	22 (21 to 24)	38 (32 to 50)	19	3 (2 to 5)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Continued on next page

Table E.2 Projected SES personnel requirements – continued from previous page

Tasmania

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	105 (96 to 117)	-78 (-80 to -75)	497	-392 (-401 to -380)
2000-2019	117 (110 to 127)	-75 (-77 to -73)	508	-391 (-398 to -381)
2020-2039	138 (124 to 158)	-71 (-74 to -67)	496	-358 (-372 to -338)
2040-2059	148 (131 to 171)	-69 (-73 to -64)	457	-309 (-326 to -286)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	197 (185 to 210)	-59 (-62 to -56)	497	-300 (-312 to -287)
2000-2019	215 (199 to 234)	-55 (-59 to -51)	508	-293 (-309 to -274)
2020-2039	260 (230 to 304)	-46 (-52 to -37)	524	-264 (-294 to -220)
2040-2059	288 (256 to 342)	-40 (-47 to -29)	498	-210 (-242 to -156)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	440 (414 to 474)	-9 (-14 to -2)	497	-57 (-83 to -23)
2000-2019	487 (460 to 526)	0 (-5 to 9)	508	-21 (-48 to 18)
2020-2039	597 (541 to 710)	23 (12 to 46)	549	48 (-8 to 161)
2040-2059	667 (601 to 771)	37 (24 to 59)	540	127 (61 to 231)
2060-2079	NA	NA	NA	NA
2080-2099	NA	NA	NA	NA

Table E.3: Projected TFS personnel requirements in each municipality to 2100. Projections were based on the assumption that current personnel levels were adequate to manage *high incident year*.

Break O'Day

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	34 (25 to 43)	-69 (-77 to -61)	142	-108 (-117 to -99)
2000-2019	38 (30 to 44)	-65 (-72 to -60)	149	-111 (-119 to -105)
2020-2039	71 (42 to 137)	-36 (-62 to 24)	129	-58 (-87 to 8)
2040-2059	64 (50 to 74)	-42 (-54 to -33)	112	-48 (-62 to -38)
2060-2079	86 (59 to 183)	-22 (-46 to 65)	NA	NA
2080-2099	97 (68 to 128)	-12 (-38 to 16)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	56 (41 to 71)	-49 (-63 to -36)	142	-86 (-101 to -71)
2000-2019	63 (49 to 72)	-43 (-55 to -35)	149	-86 (-100 to -77)
2020-2039	117 (69 to 226)	6 (-37 to 104)	138	-21 (-69 to 88)
2040-2059	106 (83 to 121)	-4 (-25 to 10)	125	-19 (-42 to -4)
2060-2079	143 (97 to 303)	29 (-12 to 173)	NA	NA
2080-2099	161 (112 to 212)	46 (1 to 91)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	98 (73 to 126)	-11 (-34 to 14)	142	-44 (-69 to -16)
2000-2019	111 (87 to 127)	0 (-21 to 15)	149	-38 (-62 to -22)
2020-2039	207 (122 to 401)	87 (10 to 262)	148	59 (-26 to 253)
2040-2059	187 (147 to 215)	69 (33 to 94)	142	45 (5 to 73)
2060-2079	252 (171 to 537)	128 (55 to 384)	NA	NA
2080-2099	284 (198 to 376)	156 (79 to 239)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Brighton

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	115 (111 to 117)	-67 (-68 to -66)	81	34 (30 to 36)
2000-2019	146 (144 to 148)	-58 (-59 to -57)	85	61 (59 to 63)
2020-2039	283 (282 to 285)	-19 (-19 to -19)	99	184 (183 to 186)
2040-2059	214 (209 to 219)	-39 (-40 to -37)	102	112 (107 to 117)
2060-2079	300 (259 to 340)	-14 (-26 to -3)	NA	NA
2080-2099	474 (441 to 505)	35 (26 to 44)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	184 (178 to 188)	-47 (-49 to -46)	81	103 (97 to 107)
2000-2019	235 (231 to 237)	-33 (-34 to -32)	85	150 (146 to 152)
2020-2039	454 (452 to 456)	29 (29 to 30)	102	352 (350 to 354)
2040-2059	342 (334 to 351)	-2 (-5 to 0)	109	233 (225 to 242)
2060-2079	481 (416 to 546)	37 (19 to 56)	NA	NA
2080-2099	760 (707 to 811)	116 (101 to 131)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	276 (267 to 282)	-21 (-24 to -19)	81	195 (186 to 201)
2000-2019	352 (346 to 355)	0 (-1 to 1)	85	267 (261 to 270)
2020-2039	682 (679 to 685)	94 (93 to 95)	105	577 (574 to 580)
2040-2059	514 (502 to 526)	47 (43 to 50)	113	401 (389 to 413)
2060-2079	722 (624 to 820)	106 (78 to 133)	NA	NA
2080-2099	1141 (1062 to 1218)	225 (202 to 247)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Burnie

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	33 (31 to 34)	-58 (-61 to -57)	55	-22 (-24 to -21)
2000-2019	40 (38 to 42)	-50 (-52 to -47)	57	-17 (-19 to -15)
2020-2039	45 (42 to 46)	-43 (-47 to -42)	55	-10 (-13 to -9)
2040-2059	55 (53 to 60)	-31 (-33 to -25)	52	3 (1 to 8)
2060-2079	64 (58 to 69)	-19 (-27 to -13)	NA	NA
2080-2099	89 (79 to 97)	12 (-1 to 22)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (41 to 45)	-46 (-48 to -43)	55	-12 (-14 to -10)
2000-2019	53 (50 to 55)	-33 (-37 to -31)	57	-4 (-7 to -2)
2020-2039	59 (55 to 61)	-26 (-31 to -23)	56	3 (-1 to 5)
2040-2059	73 (70 to 79)	-8 (-12 to -1)	55	18 (15 to 24)
2060-2079	84 (77 to 90)	6 (-3 to 13)	NA	NA
2080-2099	118 (103 to 127)	48 (29 to 59)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	65 (62 to 68)	-18 (-22 to -15)	55	10 (7 to 13)
2000-2019	80 (75 to 84)	0 (-6 to 6)	57	23 (18 to 27)
2020-2039	90 (84 to 92)	13 (6 to 15)	59	31 (25 to 33)
2040-2059	110 (105 to 119)	38 (32 to 49)	59	51 (46 to 60)
2060-2079	128 (116 to 137)	61 (45 to 72)	NA	NA
2080-2099	178 (157 to 193)	123 (97 to 142)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Central Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	30 (29 to 32)	-60 (-61 to -57)	148	-118 (-119 to -116)
2000-2019	37 (32 to 42)	-50 (-57 to -43)	155	-118 (-123 to -113)
2020-2039	43 (40 to 47)	-42 (-46 to -37)	149	-106 (-109 to -102)
2040-2059	53 (47 to 61)	-29 (-37 to -18)	141	-88 (-94 to -80)
2060-2079	61 (55 to 79)	-18 (-26 to 6)	NA	NA
2080-2099	92 (78 to 142)	23 (5 to 90)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (41 to 46)	-42 (-45 to -38)	148	-105 (-107 to -102)
2000-2019	53 (45 to 60)	-29 (-40 to -19)	155	-102 (-110 to -95)
2020-2039	61 (57 to 67)	-18 (-24 to -10)	157	-96 (-100 to -90)
2040-2059	75 (68 to 88)	0 (-9 to 18)	154	-79 (-86 to -66)
2060-2079	88 (79 to 113)	18 (6 to 51)	NA	NA
2080-2099	132 (111 to 204)	76 (48 to 173)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	60 (57 to 64)	-19 (-24 to -14)	148	-88 (-91 to -84)
2000-2019	75 (63 to 84)	0 (-16 to 13)	155	-80 (-92 to -71)
2020-2039	86 (80 to 94)	15 (7 to 26)	167	-81 (-87 to -73)
2040-2059	106 (95 to 124)	42 (27 to 66)	169	-63 (-74 to -45)
2060-2079	124 (111 to 159)	66 (48 to 113)	NA	NA
2080-2099	186 (157 to 287)	148 (110 to 283)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Central Highlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	21 (17 to 33)	-82 (-86 to -72)	111	-90 (-94 to -78)
2000-2019	27 (23 to 33)	-77 (-81 to -72)	116	-89 (-93 to -83)
2020-2039	43 (30 to 95)	-64 (-75 to -22)	92	-49 (-62 to 3)
2040-2059	42 (33 to 53)	-65 (-72 to -56)	81	-39 (-48 to -28)
2060-2079	64 (45 to 123)	-47 (-63 to 1)	NA	NA
2080-2099	82 (58 to 110)	-32 (-52 to -9)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	34 (27 to 53)	-72 (-77 to -56)	111	-77 (-84 to -58)
2000-2019	42 (35 to 52)	-65 (-71 to -57)	116	-74 (-81 to -64)
2020-2039	68 (47 to 150)	-44 (-61 to 23)	98	-30 (-51 to 52)
2040-2059	66 (52 to 83)	-45 (-57 to -31)	90	-24 (-38 to -7)
2060-2079	101 (72 to 194)	-17 (-40 to 60)	NA	NA
2080-2099	130 (92 to 174)	7 (-24 to 43)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	98 (79 to 154)	-19 (-35 to 27)	111	-13 (-32 to 43)
2000-2019	122 (103 to 153)	0 (-15 to 26)	116	6 (-13 to 37)
2020-2039	200 (138 to 442)	64 (14 to 263)	105	95 (33 to 337)
2040-2059	192 (153 to 243)	58 (26 to 100)	101	91 (52 to 142)
2060-2079	296 (210 to 572)	143 (73 to 369)	NA	NA
2080-2099	381 (271 to 512)	213 (123 to 320)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Circular Head

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	15 (13 to 17)	-85 (-87 to -83)	135	-120 (-122 to -118)
2000-2019	18 (15 to 21)	-82 (-85 to -79)	142	-124 (-127 to -121)
2020-2039	22 (20 to 26)	-78 (-80 to -74)	126	-104 (-106 to -100)
2040-2059	28 (25 to 35)	-72 (-75 to -66)	113	-85 (-88 to -78)
2060-2079	33 (25 to 43)	-67 (-75 to -58)	NA	NA
2080-2099	49 (40 to 80)	-52 (-61 to -22)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (27 to 35)	-69 (-73 to -66)	135	-104 (-108 to -100)
2000-2019	38 (31 to 44)	-63 (-69 to -57)	142	-104 (-111 to -98)
2020-2039	46 (42 to 54)	-55 (-59 to -47)	130	-84 (-88 to -76)
2040-2059	58 (52 to 72)	-43 (-49 to -30)	118	-60 (-66 to -46)
2060-2079	69 (52 to 90)	-33 (-49 to -12)	NA	NA
2080-2099	102 (84 to 169)	0 (-18 to 65)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	82 (74 to 93)	-20 (-28 to -9)	135	-53 (-61 to -42)
2000-2019	103 (82 to 118)	0 (-20 to 15)	142	-39 (-60 to -24)
2020-2039	124 (113 to 147)	21 (10 to 43)	134	-10 (-21 to 13)
2040-2059	157 (139 to 196)	53 (35 to 91)	126	31 (13 to 70)
2060-2079	186 (141 to 244)	81 (37 to 137)	NA	NA
2080-2099	275 (228 to 458)	167 (122 to 345)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Clarence

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	180 (156 to 201)	-53 (-59 to -47)	175	5 (-19 to 26)
2000-2019	210 (199 to 217)	-45 (-48 to -43)	184	26 (15 to 33)
2020-2039	267 (218 to 319)	-30 (-43 to -16)	186	81 (32 to 133)
2040-2059	319 (288 to 366)	-16 (-25 to -4)	187	132 (101 to 179)
2060-2079	490 (377 to 619)	28 (-1 to 62)	NA	NA
2080-2099	563 (476 to 683)	47 (24 to 78)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	247 (214 to 276)	-35 (-44 to -28)	175	72 (39 to 101)
2000-2019	288 (274 to 298)	-25 (-28 to -22)	184	104 (90 to 114)
2020-2039	367 (300 to 439)	-4 (-21 to 15)	197	170 (103 to 242)
2040-2059	439 (396 to 503)	15 (4 to 31)	202	237 (194 to 301)
2060-2079	674 (518 to 851)	76 (35 to 122)	NA	NA
2080-2099	774 (654 to 939)	102 (71 to 145)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	330 (285 to 368)	-14 (-25 to -4)	175	155 (110 to 193)
2000-2019	384 (365 to 397)	0 (-4 to 4)	184	200 (181 to 213)
2020-2039	490 (400 to 586)	28 (5 to 53)	208	282 (192 to 378)
2040-2059	586 (528 to 672)	53 (38 to 75)	220	366 (308 to 452)
2060-2079	900 (692 to 1136)	135 (81 to 196)	NA	NA
2080-2099	1034 (874 to 1255)	170 (128 to 227)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Derwent Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	47 (43 to 52)	-66 (-69 to -62)	118	-71 (-75 to -66)
2000-2019	55 (50 to 62)	-60 (-64 to -55)	124	-69 (-74 to -62)
2020-2039	78 (58 to 122)	-44 (-58 to -12)	113	-35 (-55 to 9)
2040-2059	91 (85 to 116)	-35 (-39 to -17)	104	-13 (-19 to 12)
2060-2079	120 (106 to 160)	-14 (-24 to 15)	NA	NA
2080-2099	176 (153 to 264)	26 (10 to 89)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	77 (71 to 86)	-44 (-49 to -38)	118	-41 (-47 to -32)
2000-2019	91 (82 to 102)	-35 (-41 to -27)	124	-33 (-42 to -22)
2020-2039	129 (96 to 200)	-7 (-31 to 43)	118	11 (-22 to 82)
2040-2059	150 (140 to 191)	8 (0 to 37)	112	38 (28 to 79)
2060-2079	197 (175 to 263)	41 (25 to 88)	NA	NA
2080-2099	290 (252 to 435)	108 (80 to 211)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	119 (110 to 132)	-15 (-21 to -5)	118	1 (-8 to 14)
2000-2019	140 (127 to 159)	0 (-9 to 14)	124	16 (3 to 35)
2020-2039	199 (148 to 310)	43 (6 to 122)	125	74 (23 to 185)
2040-2059	232 (216 to 296)	66 (55 to 112)	122	110 (94 to 174)
2060-2079	305 (271 to 408)	118 (94 to 192)	NA	NA
2080-2099	450 (391 to 675)	222 (180 to 383)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Devonport

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	33 (33 to 33)	-42 (-42 to -42)	45	-12 (-12 to -12)
2000-2019	29 (29 to 29)	-49 (-49 to -49)	47	-18 (-18 to -18)
2020-2039	44 (44 to 44)	-22 (-22 to -22)	47	-3 (-3 to -3)
2040-2059	50 (50 to 50)	-12 (-12 to -12)	48	2 (2 to 2)
2060-2079	64 (64 to 64)	13 (13 to 13)	NA	NA
2080-2099	95 (95 to 95)	67 (67 to 67)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (43 to 43)	-24 (-24 to -24)	45	-2 (-2 to -2)
2000-2019	38 (38 to 38)	-33 (-33 to -33)	47	-9 (-9 to -9)
2020-2039	58 (58 to 58)	2 (2 to 2)	49	9 (9 to 9)
2040-2059	65 (65 to 65)	15 (15 to 15)	49	16 (16 to 16)
2060-2079	84 (84 to 84)	48 (48 to 48)	NA	NA
2080-2099	125 (125 to 125)	120 (120 to 120)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	65 (65 to 65)	15 (15 to 15)	45	20 (20 to 20)
2000-2019	57 (57 to 57)	NA	47	10 (10 to 10)
2020-2039	88 (88 to 88)	55 (55 to 55)	51	37 (37 to 37)
2040-2059	99 (99 to 99)	74 (74 to 74)	52	47 (47 to 47)
2060-2079	127 (127 to 127)	123 (123 to 123)	NA	NA
2080-2099	190 (190 to 190)	234 (234 to 234)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Dorset

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	33 (30 to 39)	-74 (-76 to -69)	146	-113 (-116 to -107)
2000-2019	43 (37 to 50)	-66 (-71 to -61)	153	-110 (-116 to -103)
2020-2039	67 (50 to 98)	-48 (-61 to -24)	120	-53 (-70 to -22)
2040-2059	77 (67 to 105)	-40 (-48 to -18)	100	-23 (-33 to 5)
2060-2079	86 (70 to 152)	-33 (-45 to 18)	NA	NA
2080-2099	141 (117 to 275)	10 (-9 to 114)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	54 (49 to 64)	-58 (-62 to -50)	146	-92 (-97 to -82)
2000-2019	70 (61 to 82)	-45 (-52 to -36)	153	-83 (-92 to -71)
2020-2039	110 (82 to 160)	-14 (-36 to 25)	125	-15 (-43 to 35)
2040-2059	126 (110 to 171)	-2 (-14 to 33)	106	20 (4 to 65)
2060-2079	141 (114 to 248)	10 (-11 to 93)	NA	NA
2080-2099	231 (192 to 451)	80 (49 to 250)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	99 (90 to 117)	-23 (-30 to -9)	146	-47 (-56 to -29)
2000-2019	129 (112 to 150)	0 (-13 to 17)	153	-24 (-41 to -3)
2020-2039	203 (150 to 295)	58 (17 to 129)	135	68 (15 to 160)
2040-2059	232 (202 to 316)	80 (57 to 145)	121	111 (81 to 195)
2060-2079	260 (209 to 457)	102 (63 to 255)	NA	NA
2080-2099	425 (354 to 831)	230 (175 to 545)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Flinders

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (4 to 4)	-73 (-73 to -73)	108	-104 (-104 to -104)
2000-2019	5 (4 to 6)	-66 (-73 to -60)	113	-108 (-109 to -107)
2020-2039	7 (5 to 11)	-53 (-66 to -26)	95	-88 (-90 to -84)
2040-2059	11 (6 to 16)	-26 (-60 to 7)	78	-67 (-72 to -62)
2060-2079	13 (10 to 23)	-13 (-33 to 54)	NA	NA
2080-2099	17 (13 to 34)	14 (-13 to 127)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	7 (6 to 7)	-53 (-60 to -53)	108	-101 (-102 to -101)
2000-2019	9 (7 to 11)	-40 (-53 to -26)	113	-104 (-106 to -102)
2020-2039	12 (8 to 18)	-19 (-46 to 20)	105	-93 (-97 to -87)
2040-2059	19 (10 to 28)	27 (-33 to 87)	93	-74 (-83 to -65)
2060-2079	22 (17 to 40)	47 (14 to 167)	NA	NA
2080-2099	30 (22 to 59)	100 (47 to 294)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (10 to 12)	-26 (-33 to -19)	108	-97 (-98 to -96)
2000-2019	15 (12 to 18)	0 (-19 to 20)	113	-98 (-101 to -95)
2020-2039	21 (13 to 31)	40 (-13 to 107)	111	-90 (-98 to -80)
2040-2059	32 (18 to 47)	114 (20 to 214)	102	-70 (-84 to -55)
2060-2079	37 (28 to 68)	147 (87 to 354)	NA	NA
2080-2099	51 (37 to 101)	240 (147 to 574)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

George Town

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	52 (46 to 60)	-58 (-63 to -52)	96	-44 (-50 to -36)
2000-2019	60 (56 to 65)	-52 (-55 to -48)	101	-41 (-45 to -36)
2020-2039	97 (88 to 113)	-22 (-29 to -9)	89	8 (-1 to 24)
2040-2059	121 (104 to 149)	-3 (-16 to 20)	79	42 (25 to 70)
2060-2079	144 (106 to 275)	16 (-15 to 121)	NA	NA
2080-2099	262 (182 to 470)	110 (46 to 276)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	68 (59 to 78)	-45 (-52 to -37)	96	-28 (-37 to -18)
2000-2019	78 (72 to 84)	-37 (-42 to -32)	101	-23 (-29 to -17)
2020-2039	125 (114 to 146)	0 (-8 to 17)	95	30 (19 to 51)
2040-2059	156 (134 to 193)	25 (8 to 55)	87	69 (47 to 106)
2060-2079	186 (137 to 357)	49 (10 to 186)	NA	NA
2080-2099	339 (236 to 609)	172 (89 to 388)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	110 (95 to 125)	-12 (-24 to 0)	96	14 (-1 to 29)
2000-2019	125 (117 to 135)	0 (-6 to 9)	101	24 (16 to 34)
2020-2039	203 (185 to 237)	63 (48 to 90)	105	98 (80 to 132)
2040-2059	253 (217 to 313)	103 (74 to 151)	103	150 (114 to 210)
2060-2079	301 (221 to 577)	141 (77 to 362)	NA	NA
2080-2099	548 (382 to 986)	339 (206 to 689)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Glamorgan/Spring Bay

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	20 (18 to 23)	-76 (-78 to -72)	124	-104 (-106 to -101)
2000-2019	21 (18 to 24)	-75 (-78 to -71)	130	-109 (-112 to -106)
2020-2039	27 (22 to 34)	-68 (-74 to -60)	102	-75 (-80 to -68)
2040-2059	29 (23 to 36)	-65 (-72 to -57)	84	-55 (-61 to -48)
2060-2079	43 (35 to 49)	-49 (-58 to -42)	NA	NA
2080-2099	46 (36 to 59)	-45 (-57 to -30)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (39 to 48)	-49 (-54 to -43)	124	-81 (-85 to -76)
2000-2019	44 (37 to 51)	-48 (-56 to -40)	130	-86 (-93 to -79)
2020-2039	58 (46 to 74)	-31 (-45 to -12)	102	-44 (-56 to -28)
2040-2059	62 (49 to 76)	-27 (-42 to -10)	84	-22 (-35 to -8)
2060-2079	92 (75 to 104)	9 (-11 to 23)	NA	NA
2080-2099	99 (78 to 127)	17 (-8 to 50)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	83 (74 to 92)	-2 (-12 to 9)	124	-41 (-50 to -32)
2000-2019	85 (72 to 98)	0 (-15 to 16)	130	-45 (-58 to -32)
2020-2039	111 (88 to 142)	31 (4 to 68)	118	-7 (-30 to 24)
2040-2059	119 (93 to 146)	40 (10 to 72)	108	11 (-15 to 38)
2060-2079	176 (145 to 200)	108 (71 to 136)	NA	NA
2080-2099	190 (150 to 244)	124 (77 to 188)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Glenorchy

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	90 (90 to 90)	-52 (-52 to -52)	92	-2 (-2 to -2)
2000-2019	120 (120 to 120)	-36 (-36 to -36)	96	24 (24 to 24)
2020-2039	141 (141 to 141)	-25 (-25 to -25)	101	40 (40 to 40)
2040-2059	177 (177 to 177)	-5 (-5 to -5)	100	77 (77 to 77)
2060-2079	228 (228 to 228)	22 (22 to 22)	NA	NA
2080-2099	298 (298 to 298)	59 (59 to 59)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	112 (112 to 112)	-40 (-40 to -40)	92	20 (20 to 20)
2000-2019	149 (149 to 149)	-20 (-20 to -20)	96	53 (53 to 53)
2020-2039	175 (175 to 175)	-6 (-6 to -6)	103	72 (72 to 72)
2040-2059	220 (220 to 220)	18 (18 to 18)	105	115 (115 to 115)
2060-2079	284 (284 to 284)	52 (52 to 52)	NA	NA
2080-2099	370 (370 to 370)	97 (97 to 97)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	140 (140 to 140)	-25 (-25 to -25)	92	48 (48 to 48)
2000-2019	188 (188 to 188)	NA	96	92 (92 to 92)
2020-2039	221 (221 to 221)	18 (18 to 18)	106	115 (115 to 115)
2040-2059	277 (277 to 277)	48 (48 to 48)	109	168 (168 to 168)
2060-2079	357 (357 to 357)	90 (90 to 90)	NA	NA
2080-2099	466 (466 to 466)	148 (148 to 148)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Hobart

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (42 to 45)	-78 (-78 to -77)	85	-42 (-43 to -40)
2000-2019	49 (49 to 50)	-75 (-75 to -74)	89	-40 (-40 to -39)
2020-2039	56 (56 to 56)	-71 (-71 to -71)	85	-29 (-29 to -29)
2040-2059	78 (74 to 82)	-60 (-62 to -58)	80	-2 (-6 to 2)
2060-2079	100 (96 to 105)	-48 (-51 to -46)	NA	NA
2080-2099	129 (115 to 142)	-34 (-41 to -27)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	70 (69 to 72)	-64 (-64 to -63)	85	-15 (-16 to -13)
2000-2019	80 (79 to 82)	-59 (-59 to -58)	89	-9 (-10 to -7)
2020-2039	91 (91 to 91)	-53 (-53 to -53)	91	NA
2040-2059	127 (121 to 134)	-35 (-38 to -31)	90	37 (31 to 44)
2060-2079	163 (156 to 171)	-16 (-20 to -12)	NA	NA
2080-2099	210 (188 to 232)	8 (-4 to 19)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	172 (168 to 178)	-12 (-14 to -9)	85	87 (83 to 93)
2000-2019	196 (194 to 200)	0 (-1 to 3)	89	107 (105 to 111)
2020-2039	224 (224 to 224)	15 (15 to 15)	97	127 (127 to 127)
2040-2059	312 (297 to 329)	60 (52 to 68)	99	213 (198 to 230)
2060-2079	401 (383 to 420)	105 (96 to 115)	NA	NA
2080-2099	517 (461 to 571)	164 (136 to 192)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Huon Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	40 (33 to 45)	-64 (-71 to -60)	245	-205 (-212 to -200)
2000-2019	44 (34 to 54)	-61 (-70 to -52)	257	-213 (-223 to -203)
2020-2039	59 (47 to 70)	-48 (-58 to -38)	253	-194 (-206 to -183)
2040-2059	76 (62 to 106)	-33 (-45 to -7)	239	-163 (-177 to -133)
2060-2079	95 (82 to 116)	-16 (-28 to 2)	NA	NA
2080-2099	136 (92 to 160)	20 (-19 to 41)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	84 (69 to 94)	-26 (-39 to -17)	245	-161 (-176 to -151)
2000-2019	92 (72 to 114)	-19 (-36 to 0)	257	-165 (-185 to -143)
2020-2039	124 (99 to 149)	9 (-13 to 31)	281	-157 (-182 to -132)
2040-2059	162 (131 to 225)	43 (15 to 98)	282	-120 (-151 to -57)
2060-2079	202 (174 to 246)	78 (53 to 116)	NA	NA
2080-2099	288 (196 to 339)	153 (72 to 198)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	103 (85 to 116)	-9 (-25 to 2)	245	-142 (-160 to -129)
2000-2019	114 (89 to 141)	0 (-21 to 24)	257	-143 (-168 to -116)
2020-2039	153 (122 to 184)	35 (8 to 62)	308	-155 (-186 to -124)
2040-2059	200 (162 to 277)	76 (43 to 143)	326	-126 (-164 to -49)
2060-2079	250 (215 to 303)	120 (89 to 166)	NA	NA
2080-2099	356 (241 to 419)	213 (112 to 268)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Kentish

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	6 (5 to 6)	-87 (-89 to -87)	114	-108 (-109 to -108)
2000-2019	8 (7 to 9)	-82 (-85 to -80)	120	-112 (-113 to -111)
2020-2039	9 (8 to 11)	-80 (-82 to -76)	118	-109 (-110 to -107)
2040-2059	11 (9 to 12)	-76 (-80 to -74)	112	-101 (-103 to -100)
2060-2079	12 (10 to 15)	-74 (-78 to -68)	NA	NA
2080-2099	17 (15 to 22)	-63 (-68 to -53)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	17 (15 to 18)	-63 (-68 to -61)	114	-97 (-99 to -96)
2000-2019	22 (19 to 25)	-53 (-59 to -46)	120	-98 (-101 to -95)
2020-2039	25 (23 to 31)	-46 (-51 to -34)	130	-105 (-107 to -99)
2040-2059	31 (27 to 36)	-34 (-42 to -23)	133	-102 (-106 to -97)
2060-2079	35 (30 to 45)	-25 (-36 to -4)	NA	NA
2080-2099	51 (44 to 66)	9 (-6 to 41)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	36 (32 to 39)	-23 (-31 to -17)	114	-78 (-82 to -75)
2000-2019	47 (41 to 53)	0 (-12 to 13)	120	-73 (-79 to -67)
2020-2039	53 (48 to 66)	13 (3 to 41)	144	-91 (-96 to -78)
2040-2059	65 (58 to 78)	39 (24 to 66)	153	-88 (-95 to -75)
2060-2079	74 (64 to 97)	58 (37 to 107)	NA	NA
2080-2099	110 (93 to 140)	135 (98 to 198)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

King Island

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2 (2 to 2)	-87 (-87 to -87)	57	-55 (-55 to -55)
2000-2019	2 (2 to 2)	-87 (-87 to -87)	59	-57 (-57 to -57)
2020-2039	3 (3 to 4)	-81 (-81 to -75)	46	-43 (-43 to -42)
2040-2059	4 (4 to 4)	-75 (-75 to -75)	39	-35 (-35 to -35)
2060-2079	5 (4 to 6)	-68 (-75 to -62)	NA	NA
2080-2099	8 (6 to 10)	-50 (-62 to -37)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	4 (3 to 4)	-75 (-81 to -75)	57	-53 (-54 to -53)
2000-2019	4 (4 to 4)	-75 (-75 to -75)	59	-55 (-55 to -55)
2020-2039	6 (5 to 7)	-62 (-68 to -56)	51	-45 (-46 to -44)
2040-2059	7 (7 to 8)	-56 (-56 to -50)	45	-38 (-38 to -37)
2060-2079	9 (7 to 11)	-43 (-56 to -31)	NA	NA
2080-2099	16 (12 to 20)	0 (-25 to 25)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	15 (14 to 17)	-6 (-12 to 7)	57	-42 (-43 to -40)
2000-2019	16 (15 to 18)	0 (-6 to 13)	59	-43 (-44 to -41)
2020-2039	25 (21 to 29)	57 (32 to 82)	56	-31 (-35 to -27)
2040-2059	31 (29 to 33)	94 (82 to 107)	52	-21 (-23 to -19)
2060-2079	39 (29 to 50)	144 (82 to 213)	NA	NA
2080-2099	70 (50 to 87)	338 (213 to 444)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Kingborough

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	42 (37 to 48)	-58 (-63 to -52)	216	-174 (-179 to -168)
2000-2019	48 (46 to 50)	-52 (-54 to -50)	227	-179 (-181 to -177)
2020-2039	54 (50 to 56)	-46 (-50 to -43)	246	-192 (-196 to -190)
2040-2059	78 (69 to 81)	-21 (-31 to -18)	253	-175 (-184 to -172)
2060-2079	108 (94 to 137)	9 (-6 to 38)	NA	NA
2080-2099	134 (125 to 145)	35 (25 to 45)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	60 (53 to 68)	-40 (-47 to -31)	216	-156 (-163 to -148)
2000-2019	68 (65 to 71)	-31 (-35 to -29)	227	-159 (-162 to -156)
2020-2039	77 (71 to 80)	-23 (-29 to -19)	272	-195 (-201 to -192)
2040-2059	111 (99 to 116)	12 (-1 to 16)	294	-183 (-195 to -178)
2060-2079	154 (134 to 196)	54 (35 to 96)	NA	NA
2080-2099	191 (178 to 207)	91 (78 to 107)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	88 (78 to 100)	-12 (-21 to 0)	216	-128 (-138 to -116)
2000-2019	100 (96 to 104)	0 (-4 to 5)	227	-127 (-131 to -123)
2020-2039	113 (105 to 118)	13 (6 to 18)	296	-183 (-191 to -178)
2040-2059	162 (145 to 170)	63 (45 to 70)	333	-171 (-188 to -163)
2060-2079	226 (197 to 288)	126 (97 to 188)	NA	NA
2080-2099	281 (262 to 305)	181 (162 to 205)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Latrobe

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	18 (15 to 20)	-59 (-65 to -54)	106	-88 (-91 to -86)
2000-2019	18 (15 to 20)	-59 (-65 to -54)	111	-93 (-96 to -91)
2020-2039	26 (24 to 29)	-40 (-45 to -34)	122	-96 (-98 to -93)
2040-2059	29 (25 to 32)	-34 (-43 to -27)	121	-92 (-96 to -89)
2060-2079	33 (29 to 38)	-25 (-34 to -13)	NA	NA
2080-2099	57 (50 to 70)	30 (14 to 60)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (26 to 34)	-29 (-40 to -22)	106	-75 (-80 to -72)
2000-2019	30 (25 to 34)	-31 (-43 to -22)	111	-81 (-86 to -77)
2020-2039	45 (41 to 49)	3 (-6 to 12)	143	-98 (-102 to -94)
2040-2059	49 (43 to 55)	12 (-2 to 25)	155	-106 (-112 to -100)
2060-2079	57 (50 to 66)	30 (14 to 50)	NA	NA
2080-2099	98 (86 to 121)	123 (96 to 175)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	45 (37 to 49)	3 (-15 to 12)	106	-61 (-69 to -57)
2000-2019	44 (36 to 49)	0 (-18 to 12)	111	-67 (-75 to -62)
2020-2039	65 (60 to 71)	48 (37 to 62)	160	-95 (-100 to -89)
2040-2059	71 (62 to 80)	62 (41 to 82)	183	-112 (-121 to -103)
2060-2079	83 (72 to 95)	89 (64 to 116)	NA	NA
2080-2099	143 (125 to 176)	225 (185 to 300)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Launceston

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	214 (201 to 254)	-49 (-52 to -39)	183	31 (18 to 71)
2000-2019	250 (205 to 292)	-40 (-51 to -30)	192	58 (13 to 100)
2020-2039	410 (343 to 509)	-3 (-18 to 21)	194	216 (149 to 315)
2040-2059	427 (378 to 465)	1 (-10 to 10)	191	236 (187 to 274)
2060-2079	446 (381 to 505)	6 (-9 to 20)	NA	NA
2080-2099	756 (655 to 862)	79 (55 to 104)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	314 (296 to 373)	-25 (-30 to -11)	183	131 (113 to 190)
2000-2019	367 (302 to 429)	-13 (-28 to 2)	192	175 (110 to 237)
2020-2039	603 (504 to 749)	43 (20 to 78)	201	402 (303 to 548)
2040-2059	628 (556 to 684)	49 (32 to 62)	202	426 (354 to 482)
2060-2079	656 (559 to 743)	56 (33 to 76)	NA	NA
2080-2099	1112 (963 to 1267)	163 (128 to 200)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	362 (340 to 430)	-14 (-19 to 2)	183	179 (157 to 247)
2000-2019	423 (348 to 494)	0 (-17 to 17)	192	231 (156 to 302)
2020-2039	695 (580 to 863)	65 (38 to 105)	207	488 (373 to 656)
2040-2059	723 (641 to 788)	71 (52 to 87)	213	510 (428 to 575)
2060-2079	756 (645 to 856)	79 (53 to 103)	NA	NA
2080-2099	1282 (1110 to 1461)	204 (163 to 246)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Meander Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (25 to 37)	-67 (-73 to -61)	190	-159 (-165 to -153)
2000-2019	40 (35 to 44)	-58 (-63 to -54)	199	-159 (-164 to -155)
2020-2039	52 (39 to 73)	-45 (-59 to -23)	179	-127 (-140 to -106)
2040-2059	59 (48 to 72)	-38 (-50 to -25)	161	-102 (-113 to -89)
2060-2079	68 (58 to 81)	-29 (-39 to -15)	NA	NA
2080-2099	107 (86 to 128)	12 (-10 to 34)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	49 (39 to 59)	-48 (-59 to -38)	190	-141 (-151 to -131)
2000-2019	63 (56 to 69)	-34 (-41 to -28)	199	-136 (-143 to -130)
2020-2039	82 (63 to 116)	-14 (-34 to 21)	187	-105 (-124 to -71)
2040-2059	94 (76 to 114)	-2 (-20 to 19)	173	-79 (-97 to -59)
2060-2079	108 (92 to 130)	13 (-4 to 36)	NA	NA
2080-2099	170 (136 to 204)	78 (42 to 113)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	75 (59 to 89)	-21 (-38 to -7)	190	-115 (-131 to -101)
2000-2019	96 (85 to 105)	0 (-11 to 10)	199	-103 (-114 to -94)
2020-2039	125 (95 to 177)	31 (-1 to 85)	196	-71 (-101 to -19)
2040-2059	144 (116 to 173)	50 (21 to 81)	187	-43 (-71 to -14)
2060-2079	165 (140 to 197)	72 (46 to 106)	NA	NA
2080-2099	260 (208 to 311)	171 (117 to 224)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Northern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	38 (27 to 49)	-67 (-76 to -57)	279	-241 (-252 to -230)
2000-2019	46 (34 to 70)	-60 (-70 to -39)	293	-247 (-259 to -223)
2020-2039	95 (50 to 195)	-18 (-56 to 69)	271	-176 (-221 to -76)
2040-2059	71 (51 to 98)	-38 (-56 to -15)	244	-173 (-193 to -146)
2060-2079	90 (62 to 168)	-22 (-46 to 45)	NA	NA
2080-2099	127 (98 to 161)	10 (-15 to 39)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	63 (45 to 81)	-45 (-61 to -30)	279	-216 (-234 to -198)
2000-2019	77 (56 to 116)	-33 (-51 to 0)	293	-216 (-237 to -177)
2020-2039	158 (84 to 325)	37 (-27 to 181)	280	-122 (-196 to 45)
2040-2059	117 (85 to 163)	1 (-26 to 41)	259	-142 (-174 to -96)
2060-2079	149 (103 to 280)	29 (-11 to 142)	NA	NA
2080-2099	211 (164 to 268)	82 (42 to 132)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	94 (68 to 122)	-18 (-41 to 6)	279	-185 (-211 to -157)
2000-2019	116 (85 to 174)	0 (-26 to 50)	293	-177 (-208 to -119)
2020-2039	238 (126 to 490)	106 (9 to 323)	291	-53 (-165 to 199)
2040-2059	177 (129 to 245)	53 (12 to 112)	276	-99 (-147 to -31)
2060-2079	225 (155 to 422)	94 (34 to 264)	NA	NA
2080-2099	318 (246 to 404)	175 (113 to 249)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Sorell

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (28 to 33)	-46 (-51 to -43)	107	-76 (-79 to -74)
2000-2019	28 (27 to 30)	-51 (-53 to -48)	112	-84 (-85 to -82)
2020-2039	36 (30 to 41)	-37 (-48 to -29)	127	-91 (-97 to -86)
2040-2059	39 (35 to 44)	-32 (-39 to -24)	131	-92 (-96 to -87)
2060-2079	66 (55 to 78)	14 (-5 to 35)	NA	NA
2080-2099	68 (63 to 78)	18 (9 to 35)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	46 (41 to 49)	-20 (-29 to -15)	107	-61 (-66 to -58)
2000-2019	42 (39 to 44)	-27 (-32 to -24)	112	-70 (-73 to -68)
2020-2039	53 (44 to 61)	-8 (-24 to 6)	135	-82 (-91 to -74)
2040-2059	58 (52 to 65)	0 (-10 to 13)	145	-87 (-93 to -80)
2060-2079	98 (82 to 115)	69 (42 to 99)	NA	NA
2080-2099	101 (93 to 116)	75 (61 to 100)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	64 (57 to 69)	11 (-1 to 19)	107	-43 (-50 to -38)
2000-2019	58 (54 to 61)	0 (-6 to 6)	112	-54 (-58 to -51)
2020-2039	73 (61 to 85)	26 (6 to 47)	140	-67 (-79 to -55)
2040-2059	81 (73 to 90)	40 (26 to 56)	152	-71 (-79 to -62)
2060-2079	137 (114 to 160)	137 (97 to 176)	NA	NA
2080-2099	141 (129 to 162)	144 (123 to 180)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Southern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	27 (24 to 30)	-74 (-77 to -71)	219	-192 (-195 to -189)
2000-2019	33 (25 to 52)	-68 (-76 to -50)	230	-197 (-205 to -178)
2020-2039	51 (34 to 91)	-51 (-67 to -14)	230	-179 (-196 to -139)
2040-2059	43 (37 to 52)	-59 (-65 to -50)	218	-175 (-181 to -166)
2060-2079	77 (60 to 107)	-27 (-43 to 1)	NA	NA
2080-2099	89 (71 to 135)	-16 (-33 to 28)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (37 to 48)	-59 (-65 to -54)	219	-176 (-182 to -171)
2000-2019	52 (39 to 81)	-50 (-63 to -23)	230	-178 (-191 to -149)
2020-2039	80 (54 to 143)	-24 (-49 to 35)	246	-166 (-192 to -103)
2040-2059	67 (58 to 81)	-36 (-45 to -23)	242	-175 (-184 to -161)
2060-2079	120 (93 to 168)	14 (-12 to 59)	NA	NA
2080-2099	140 (111 to 213)	33 (5 to 101)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	87 (75 to 97)	-17 (-29 to -8)	219	-132 (-144 to -122)
2000-2019	106 (80 to 165)	0 (-24 to 56)	230	-124 (-150 to -65)
2020-2039	164 (110 to 293)	55 (4 to 177)	262	-98 (-152 to 31)
2040-2059	137 (118 to 165)	30 (12 to 56)	268	-131 (-150 to -103)
2060-2079	245 (191 to 344)	132 (81 to 225)	NA	NA
2080-2099	286 (227 to 434)	170 (115 to 310)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Tasman

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	9 (9 to 9)	-72 (-72 to -72)	55	-46 (-46 to -46)
2000-2019	9 (9 to 9)	-72 (-72 to -72)	57	-48 (-48 to -48)
2020-2039	11 (11 to 11)	-66 (-66 to -66)	52	-41 (-41 to -41)
2040-2059	12 (12 to 12)	-63 (-63 to -63)	50	-38 (-38 to -38)
2060-2079	22 (22 to 22)	-33 (-33 to -33)	NA	NA
2080-2099	23 (23 to 23)	-30 (-30 to -30)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	16 (16 to 16)	-51 (-51 to -51)	55	-39 (-39 to -39)
2000-2019	17 (17 to 17)	-48 (-48 to -48)	57	-40 (-40 to -40)
2020-2039	20 (20 to 20)	-39 (-39 to -39)	57	-37 (-37 to -37)
2040-2059	22 (22 to 22)	-33 (-33 to -33)	58	-36 (-36 to -36)
2060-2079	41 (41 to 41)	25 (25 to 25)	NA	NA
2080-2099	43 (43 to 43)	31 (31 to 31)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (31 to 31)	-6 (-6 to -6)	55	-24 (-24 to -24)
2000-2019	33 (33 to 33)	NA	57	-24 (-24 to -24)
2020-2039	39 (39 to 39)	19 (19 to 19)	62	-23 (-23 to -23)
2040-2059	44 (44 to 44)	34 (34 to 34)	65	-21 (-21 to -21)
2060-2079	81 (81 to 81)	146 (146 to 146)	NA	NA
2080-2099	86 (86 to 86)	161 (161 to 161)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

Waratah/Wynyard

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	20 (18 to 23)	-64 (-68 to -59)	105	-85 (-87 to -82)
2000-2019	26 (22 to 28)	-54 (-61 to -50)	110	-84 (-88 to -82)
2020-2039	33 (27 to 40)	-42 (-52 to -29)	105	-72 (-78 to -65)
2040-2059	40 (35 to 44)	-29 (-38 to -22)	97	-57 (-62 to -53)
2060-2079	48 (34 to 57)	-15 (-40 to 0)	NA	NA
2080-2099	69 (54 to 89)	22 (-5 to 57)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	27 (24 to 31)	-52 (-57 to -45)	105	-78 (-81 to -74)
2000-2019	35 (29 to 38)	-38 (-49 to -33)	110	-75 (-81 to -72)
2020-2039	45 (37 to 54)	-21 (-35 to -5)	109	-64 (-72 to -55)
2040-2059	54 (47 to 60)	-5 (-17 to 6)	103	-49 (-56 to -43)
2060-2079	65 (46 to 77)	15 (-19 to 36)	NA	NA
2080-2099	94 (73 to 121)	65 (29 to 113)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (39 to 50)	-24 (-31 to -12)	105	-62 (-66 to -55)
2000-2019	57 (47 to 61)	0 (-17 to 8)	110	-53 (-63 to -49)
2020-2039	73 (59 to 87)	29 (4 to 53)	114	-41 (-55 to -27)
2040-2059	86 (75 to 96)	51 (32 to 69)	112	-26 (-37 to -16)
2060-2079	105 (73 to 125)	85 (29 to 120)	NA	NA
2080-2099	152 (118 to 195)	167 (108 to 243)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

West Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	19 (15 to 22)	-71 (-77 to -66)	65	-46 (-50 to -43)
2000-2019	22 (18 to 26)	-66 (-72 to -60)	68	-46 (-50 to -42)
2020-2039	28 (24 to 34)	-57 (-63 to -48)	52	-24 (-28 to -18)
2040-2059	35 (32 to 39)	-46 (-51 to -40)	49	-14 (-17 to -10)
2060-2079	48 (42 to 55)	-27 (-36 to -16)	NA	NA
2080-2099	67 (59 to 79)	2 (-10 to 20)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	29 (23 to 33)	-56 (-65 to -50)	65	-36 (-42 to -32)
2000-2019	34 (28 to 40)	-48 (-57 to -39)	68	-34 (-40 to -28)
2020-2039	43 (37 to 53)	-34 (-43 to -19)	53	-10 (-16 to 0)
2040-2059	54 (48 to 59)	-18 (-27 to -10)	49	5 (-1 to 10)
2060-2079	73 (64 to 84)	11 (-3 to 28)	NA	NA
2080-2099	103 (91 to 122)	57 (38 to 85)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	56 (46 to 65)	-15 (-30 to -1)	65	-9 (-19 to 0)
2000-2019	66 (54 to 78)	0 (-18 to 19)	68	-2 (-14 to 10)
2020-2039	84 (73 to 104)	28 (11 to 58)	57	27 (16 to 47)
2040-2059	106 (95 to 117)	61 (44 to 78)	53	53 (42 to 64)
2060-2079	144 (125 to 165)	119 (90 to 150)	NA	NA
2080-2099	202 (179 to 240)	207 (172 to 264)	NA	NA

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Table E.3 Projected TFS personnel requirements – continued from previous page

West Tamar

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	32 (30 to 37)	-65 (-67 to -59)	153	-121 (-123 to -116)
2000-2019	34 (32 to 35)	-63 (-65 to -61)	161	-127 (-129 to -126)
2020-2039	55 (52 to 64)	-40 (-43 to -30)	154	-99 (-102 to -90)
2040-2059	60 (57 to 66)	-34 (-38 to -28)	142	-82 (-85 to -76)
2060-2079	63 (59 to 70)	-31 (-35 to -23)	NA	NA
2080-2099	109 (99 to 119)	19 (8 to 30)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	61 (57 to 69)	-33 (-38 to -25)	153	-92 (-96 to -84)
2000-2019	64 (61 to 67)	-30 (-33 to -27)	161	-97 (-100 to -94)
2020-2039	105 (98 to 121)	15 (7 to 32)	162	-57 (-64 to -41)
2040-2059	114 (108 to 125)	24 (18 to 36)	155	-41 (-47 to -30)
2060-2079	120 (112 to 133)	31 (22 to 45)	NA	NA
2080-2099	207 (188 to 228)	125 (105 to 148)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	89 (82 to 100)	-3 (-10 to 9)	153	-64 (-71 to -53)
2000-2019	92 (89 to 97)	0 (-3 to 6)	161	-69 (-72 to -64)
2020-2039	152 (142 to 175)	66 (55 to 91)	170	-18 (-28 to 5)
2040-2059	164 (156 to 181)	79 (70 to 97)	167	-3 (-11 to 14)
2060-2079	174 (162 to 192)	90 (77 to 109)	NA	NA
2080-2099	300 (272 to 329)	227 (196 to 258)	NA	NA

Continued on next page

Table E.3 Projected TFS personnel requirements – continued from previous page

Tasmania

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1279 (1157 to 1438)	-63 (-67 to -59)	3755	-2476 (-2598 to -2317)
2000-2019	1506 (1355 to 1674)	-57 (-61 to -52)	3937	-2431 (-2582 to -2263)
2020-2039	2213 (1880 to 2802)	-37 (-46 to -20)	3737	-1524 (-1857 to -935)
2040-2059	2393 (2145 to 2726)	-32 (-39 to -22)	3508	-1115 (-1363 to -782)
2060-2079	3077 (2585 to 3967)	-12 (-26 to 13)	NA	NA
2080-2099	4377 (3745 to 5463)	24 (7 to 55)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1956 (1761 to 2201)	-44 (-50 to -37)	3755	-1799 (-1994 to -1554)
2000-2019	2298 (2052 to 2566)	-34 (-41 to -27)	3937	-1639 (-1885 to -1371)
2020-2039	3396 (2872 to 4333)	-3 (-18 to 23)	3973	-577 (-1101 to 360)
2040-2059	3652 (3263 to 4188)	4 (-7 to 19)	3874	-222 (-611 to 314)
2060-2079	4696 (3940 to 6073)	34 (12 to 73)	NA	NA
2080-2099	6696 (5704 to 8379)	90 (62 to 138)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2996 (2692 to 3390)	-15 (-23 to -3)	3755	-759 (-1063 to -365)
2000-2019	3530 (3152 to 3956)	0 (-10 to 13)	3937	-407 (-785 to 19)
2020-2039	5201 (4374 to 6776)	48 (24 to 92)	4237	964 (137 to 2539)
2040-2059	5599 (4991 to 6455)	59 (42 to 83)	4286	1313 (705 to 2169)
2060-2079	7276 (6069 to 9594)	107 (72 to 172)	NA	NA
2080-2099	10303 (8724 to 13112)	192 (148 to 272)	NA	NA

Table E.4: Projected EVN personnel requirements in each municipality to 2100. Projections were based on the assumption that current personnel levels were adequate to manage *high incident year*.

Break O'Day

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	145 (135 to 155)	-43 (-47 to -39)	187	-42 (-52 to -32)
2000-2019	160 (143 to 173)	-37 (-44 to -32)	195	-35 (-52 to -22)
2020-2039	200 (152 to 289)	-22 (-41 to 13)	170	30 (-18 to 119)
2040-2059	195 (153 to 243)	-24 (-40 to -5)	148	47 (5 to 95)
2060-2079	86 (59 to 183)	-66 (-77 to -29)	NA	NA
2080-2099	97 (68 to 128)	-62 (-73 to -50)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	180 (164 to 197)	-30 (-36 to -23)	187	-7 (-23 to 10)
2000-2019	199 (176 to 217)	-22 (-31 to -15)	195	4 (-19 to 22)
2020-2039	262 (193 to 400)	2 (-25 to 56)	181	81 (12 to 219)
2040-2059	255 (200 to 313)	-1 (-22 to 22)	163	92 (37 to 150)
2060-2079	143 (97 to 303)	-44 (-62 to 18)	NA	NA
2080-2099	161 (112 to 212)	-37 (-56 to -17)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	232 (204 to 263)	-10 (-20 to 2)	187	45 (17 to 76)
2000-2019	258 (223 to 284)	0 (-13 to 11)	195	63 (28 to 89)
2020-2039	366 (257 to 597)	42 (0 to 132)	193	173 (64 to 404)
2040-2059	351 (274 to 426)	37 (7 to 66)	186	165 (88 to 240)
2060-2079	252 (171 to 537)	-2 (-33 to 109)	NA	NA
2080-2099	284 (198 to 376)	11 (-23 to 46)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Brighton

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	117 (113 to 119)	-67 (-68 to -66)	93	24 (20 to 26)
2000-2019	148 (146 to 150)	-58 (-59 to -58)	97	51 (49 to 53)
2020-2039	286 (285 to 288)	-20 (-20 to -19)	113	173 (172 to 175)
2040-2059	216 (211 to 221)	-39 (-41 to -38)	117	99 (94 to 104)
2060-2079	300 (259 to 340)	-16 (-27 to -5)	NA	NA
2080-2099	474 (441 to 505)	33 (24 to 42)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	187 (181 to 191)	-47 (-49 to -46)	93	94 (88 to 98)
2000-2019	238 (234 to 240)	-33 (-34 to -32)	97	141 (137 to 143)
2020-2039	459 (457 to 461)	29 (28 to 29)	117	342 (340 to 344)
2040-2059	346 (338 to 355)	-3 (-5 to 0)	125	221 (213 to 230)
2060-2079	481 (416 to 546)	35 (17 to 53)	NA	NA
2080-2099	760 (707 to 811)	113 (98 to 127)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	281 (272 to 288)	-21 (-24 to -19)	93	188 (179 to 195)
2000-2019	358 (352 to 361)	0 (-1 to 1)	97	261 (255 to 264)
2020-2039	692 (689 to 696)	94 (93 to 95)	120	572 (569 to 576)
2040-2059	523 (511 to 535)	47 (43 to 50)	129	394 (382 to 406)
2060-2079	722 (624 to 820)	102 (75 to 130)	NA	NA
2080-2099	1141 (1062 to 1218)	219 (197 to 241)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Burnie

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	34 (32 to 35)	-61 (-64 to -60)	85	-51 (-53 to -50)
2000-2019	42 (39 to 44)	-52 (-56 to -50)	88	-46 (-49 to -44)
2020-2039	47 (44 to 48)	-47 (-50 to -46)	86	-39 (-42 to -38)
2040-2059	57 (55 to 62)	-35 (-38 to -30)	81	-24 (-26 to -19)
2060-2079	64 (58 to 69)	-28 (-34 to -22)	NA	NA
2080-2099	89 (79 to 97)	0 (-11 to 9)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	46 (44 to 48)	-48 (-50 to -46)	85	-39 (-41 to -37)
2000-2019	56 (53 to 58)	-37 (-40 to -34)	88	-32 (-35 to -30)
2020-2039	62 (58 to 64)	-30 (-34 to -28)	88	-26 (-30 to -24)
2040-2059	77 (74 to 83)	-13 (-16 to -6)	85	-8 (-11 to -2)
2060-2079	84 (77 to 90)	-5 (-13 to 2)	NA	NA
2080-2099	118 (103 to 127)	33 (16 to 43)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	73 (70 to 76)	-17 (-21 to -14)	85	-12 (-15 to -9)
2000-2019	89 (84 to 93)	0 (-5 to 5)	88	1 (-4 to 5)
2020-2039	100 (93 to 102)	13 (5 to 15)	92	8 (1 to 10)
2040-2059	121 (115 to 130)	36 (30 to 47)	92	29 (23 to 38)
2060-2079	128 (116 to 137)	44 (31 to 54)	NA	NA
2080-2099	178 (157 to 193)	100 (77 to 117)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Central Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (30 to 34)	-65 (-66 to -62)	173	-142 (-143 to -139)
2000-2019	39 (34 to 44)	-56 (-62 to -51)	181	-142 (-147 to -137)
2020-2039	45 (42 to 49)	-50 (-53 to -45)	176	-131 (-134 to -127)
2040-2059	55 (49 to 63)	-38 (-45 to -30)	166	-111 (-117 to -103)
2060-2079	61 (55 to 79)	-32 (-38 to -12)	NA	NA
2080-2099	92 (78 to 142)	3 (-13 to 58)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	47 (45 to 50)	-47 (-50 to -44)	173	-126 (-128 to -123)
2000-2019	57 (49 to 65)	-36 (-45 to -27)	181	-124 (-132 to -116)
2020-2039	66 (61 to 72)	-26 (-32 to -19)	186	-120 (-125 to -114)
2040-2059	80 (73 to 94)	-11 (-18 to 5)	182	-102 (-109 to -88)
2060-2079	88 (79 to 113)	-2 (-12 to 26)	NA	NA
2080-2099	132 (111 to 204)	47 (24 to 127)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	73 (70 to 78)	-18 (-22 to -13)	173	-100 (-103 to -95)
2000-2019	90 (77 to 100)	0 (-14 to 12)	181	-91 (-104 to -81)
2020-2039	103 (97 to 113)	15 (8 to 26)	197	-94 (-100 to -84)
2040-2059	126 (114 to 145)	40 (27 to 62)	200	-74 (-86 to -55)
2060-2079	124 (111 to 159)	38 (24 to 77)	NA	NA
2080-2099	186 (157 to 287)	107 (75 to 219)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Central Highlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	46 (41 to 59)	-76 (-78 to -69)	141	-95 (-100 to -82)
2000-2019	54 (49 to 63)	-72 (-74 to -67)	147	-93 (-98 to -84)
2020-2039	72 (55 to 132)	-62 (-71 to -31)	119	-47 (-64 to 13)
2040-2059	71 (57 to 92)	-63 (-70 to -52)	103	-32 (-46 to -11)
2060-2079	64 (45 to 123)	-67 (-76 to -36)	NA	NA
2080-2099	82 (58 to 110)	-57 (-70 to -43)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	68 (59 to 90)	-64 (-69 to -53)	141	-73 (-82 to -51)
2000-2019	80 (70 to 93)	-58 (-63 to -52)	147	-67 (-77 to -54)
2020-2039	110 (83 to 205)	-43 (-57 to 6)	126	-16 (-43 to 79)
2040-2059	109 (86 to 144)	-43 (-55 to -25)	113	-4 (-27 to 31)
2060-2079	101 (72 to 194)	-47 (-62 to 0)	NA	NA
2080-2099	130 (92 to 174)	-32 (-52 to -10)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	162 (139 to 227)	-16 (-28 to 18)	141	21 (-2 to 86)
2000-2019	194 (169 to 233)	0 (-12 to 21)	147	47 (22 to 86)
2020-2039	285 (209 to 569)	47 (8 to 194)	135	150 (74 to 434)
2040-2059	280 (225 to 369)	45 (16 to 91)	130	150 (95 to 239)
2060-2079	296 (210 to 572)	53 (9 to 195)	NA	NA
2080-2099	381 (271 to 512)	97 (40 to 164)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Circular Head

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	24 (21 to 27)	-80 (-82 to -77)	183	-159 (-162 to -156)
2000-2019	28 (24 to 32)	-76 (-80 to -73)	192	-164 (-168 to -160)
2020-2039	33 (30 to 38)	-72 (-75 to -68)	171	-138 (-141 to -133)
2040-2059	39 (35 to 48)	-67 (-71 to -60)	154	-115 (-119 to -106)
2060-2079	33 (25 to 43)	-72 (-79 to -64)	NA	NA
2080-2099	49 (40 to 80)	-59 (-66 to -33)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	43 (38 to 48)	-64 (-68 to -60)	183	-140 (-145 to -135)
2000-2019	51 (42 to 58)	-57 (-65 to -52)	192	-141 (-150 to -134)
2020-2039	60 (55 to 69)	-50 (-54 to -42)	175	-115 (-120 to -106)
2040-2059	73 (66 to 89)	-39 (-45 to -26)	159	-86 (-93 to -70)
2060-2079	69 (52 to 90)	-42 (-57 to -25)	NA	NA
2080-2099	102 (84 to 169)	-15 (-30 to 40)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	99 (89 to 111)	-18 (-26 to -8)	183	-84 (-94 to -72)
2000-2019	121 (98 to 138)	0 (-19 to 15)	192	-71 (-94 to -54)
2020-2039	144 (131 to 169)	20 (9 to 40)	181	-37 (-50 to -12)
2040-2059	178 (158 to 221)	48 (31 to 83)	170	8 (-12 to 51)
2060-2079	186 (141 to 244)	54 (17 to 102)	NA	NA
2080-2099	275 (228 to 458)	128 (89 to 279)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Clarence

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	182 (158 to 203)	-53 (-59 to -48)	203	-21 (-45 to 0)
2000-2019	212 (201 to 219)	-45 (-48 to -44)	212	0 (-11 to 7)
2020-2039	270 (220 to 322)	-31 (-43 to -17)	216	54 (4 to 106)
2040-2059	322 (291 to 369)	-17 (-25 to -5)	215	107 (76 to 154)
2060-2079	490 (377 to 619)	25 (-3 to 58)	NA	NA
2080-2099	563 (476 to 683)	44 (22 to 75)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	251 (217 to 280)	-35 (-44 to -28)	203	48 (14 to 77)
2000-2019	292 (278 to 302)	-25 (-29 to -22)	212	80 (66 to 90)
2020-2039	372 (304 to 445)	-5 (-22 to 14)	229	143 (75 to 216)
2040-2059	444 (401 to 509)	14 (3 to 30)	233	211 (168 to 276)
2060-2079	674 (518 to 851)	72 (33 to 118)	NA	NA
2080-2099	774 (654 to 939)	98 (67 to 140)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	337 (291 to 375)	-14 (-25 to -4)	203	134 (88 to 172)
2000-2019	392 (372 to 405)	0 (-5 to 4)	212	180 (160 to 193)
2020-2039	499 (408 to 597)	28 (5 to 53)	241	258 (167 to 356)
2040-2059	596 (537 to 683)	53 (37 to 75)	254	342 (283 to 429)
2060-2079	900 (692 to 1136)	130 (77 to 190)	NA	NA
2080-2099	1034 (874 to 1255)	164 (123 to 221)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Derwent Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	59 (55 to 64)	-66 (-69 to -64)	162	-103 (-107 to -98)
2000-2019	69 (62 to 76)	-61 (-65 to -57)	169	-100 (-107 to -93)
2020-2039	92 (70 to 137)	-48 (-60 to -23)	155	-63 (-85 to -18)
2040-2059	105 (97 to 132)	-41 (-45 to -25)	141	-36 (-44 to -9)
2060-2079	120 (106 to 160)	-32 (-40 to -10)	NA	NA
2080-2099	176 (153 to 264)	-1 (-14 to 49)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	96 (90 to 105)	-46 (-49 to -41)	162	-66 (-72 to -57)
2000-2019	112 (101 to 124)	-37 (-43 to -30)	169	-57 (-68 to -45)
2020-2039	151 (115 to 226)	-15 (-35 to 27)	161	-10 (-46 to 65)
2040-2059	173 (160 to 218)	-2 (-10 to 23)	152	21 (8 to 66)
2060-2079	197 (175 to 263)	11 (-1 to 48)	NA	NA
2080-2099	290 (252 to 435)	63 (42 to 145)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	154 (144 to 168)	-13 (-19 to -5)	162	-8 (-18 to 6)
2000-2019	178 (162 to 200)	0 (-8 to 13)	169	9 (-7 to 31)
2020-2039	241 (185 to 358)	36 (4 to 102)	170	71 (15 to 188)
2040-2059	277 (256 to 349)	56 (44 to 97)	166	111 (90 to 183)
2060-2079	305 (271 to 408)	72 (53 to 130)	NA	NA
2080-2099	450 (391 to 675)	153 (120 to 280)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

Devonport

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	36 (36 to 37)	-52 (-52 to -50)	70	-34 (-34 to -33)
2000-2019	32 (32 to 32)	-57 (-57 to -57)	73	-41 (-41 to -41)
2020-2039	48 (48 to 48)	-36 (-36 to -36)	73	-25 (-25 to -25)
2040-2059	55 (54 to 55)	-26 (-28 to -26)	73	-18 (-19 to -18)
2060-2079	64 (64 to 64)	-14 (-14 to -14)	NA	NA
2080-2099	95 (95 to 95)	27 (27 to 27)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	52 (52 to 52)	-30 (-30 to -30)	70	-18 (-18 to -18)
2000-2019	47 (47 to 47)	-37 (-37 to -37)	73	-26 (-26 to -26)
2020-2039	70 (70 to 70)	-6 (-6 to -6)	76	-6 (-6 to -6)
2040-2059	78 (78 to 78)	5 (5 to 5)	75	3 (3 to 3)
2060-2079	84 (84 to 84)	13 (13 to 13)	NA	NA
2080-2099	125 (125 to 125)	67 (67 to 67)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	83 (83 to 83)	11 (11 to 11)	70	13 (13 to 13)
2000-2019	75 (75 to 75)	NA	73	2 (2 to 2)
2020-2039	110 (110 to 110)	47 (47 to 47)	79	31 (31 to 31)
2040-2059	124 (123 to 124)	66 (64 to 66)	79	45 (44 to 45)
2060-2079	127 (127 to 127)	70 (70 to 70)	NA	NA
2080-2099	190 (190 to 190)	154 (154 to 154)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Dorset

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	37 (34 to 43)	-73 (-75 to -69)	176	-139 (-142 to -133)
2000-2019	47 (41 to 54)	-66 (-70 to -61)	184	-137 (-143 to -130)
2020-2039	72 (54 to 103)	-48 (-61 to -26)	146	-74 (-92 to -43)
2040-2059	82 (71 to 110)	-41 (-49 to -21)	121	-39 (-50 to -11)
2060-2079	86 (70 to 152)	-39 (-50 to 8)	NA	NA
2080-2099	141 (117 to 275)	0 (-17 to 96)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	61 (55 to 71)	-56 (-60 to -49)	176	-115 (-121 to -105)
2000-2019	77 (68 to 90)	-45 (-51 to -36)	184	-107 (-116 to -94)
2020-2039	118 (89 to 169)	-16 (-36 to 20)	152	-34 (-63 to 17)
2040-2059	134 (117 to 181)	-4 (-17 to 29)	130	4 (-13 to 51)
2060-2079	141 (114 to 248)	0 (-19 to 76)	NA	NA
2080-2099	231 (192 to 451)	64 (37 to 220)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	110 (100 to 128)	-21 (-29 to -9)	176	-66 (-76 to -48)
2000-2019	141 (123 to 163)	0 (-12 to 16)	184	-43 (-61 to -21)
2020-2039	217 (162 to 312)	54 (15 to 122)	163	54 (-1 to 149)
2040-2059	247 (215 to 334)	76 (53 to 137)	147	100 (68 to 187)
2060-2079	260 (209 to 457)	85 (49 to 225)	NA	NA
2080-2099	425 (354 to 831)	202 (152 to 490)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Flinders

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	23 (22 to 23)	-50 (-52 to -50)	138	-115 (-116 to -115)
2000-2019	26 (24 to 28)	-43 (-47 to -39)	143	-117 (-119 to -115)
2020-2039	27 (22 to 33)	-41 (-52 to -28)	116	-89 (-94 to -83)
2040-2059	30 (20 to 39)	-34 (-56 to -15)	93	-63 (-73 to -54)
2060-2079	13 (10 to 23)	-71 (-78 to -50)	NA	NA
2080-2099	17 (13 to 34)	-63 (-71 to -26)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	31 (30 to 31)	-32 (-34 to -32)	138	-107 (-108 to -107)
2000-2019	35 (32 to 39)	-23 (-30 to -15)	143	-108 (-111 to -104)
2020-2039	38 (29 to 47)	-17 (-36 to 3)	128	-90 (-99 to -81)
2040-2059	43 (27 to 59)	-6 (-41 to 29)	112	-69 (-85 to -53)
2060-2079	22 (17 to 40)	-52 (-63 to -13)	NA	NA
2080-2099	30 (22 to 59)	-34 (-52 to 29)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	40 (37 to 41)	-13 (-19 to -10)	138	-98 (-101 to -97)
2000-2019	46 (41 to 50)	0 (-10 to 9)	143	-97 (-102 to -93)
2020-2039	50 (37 to 65)	9 (-19 to 42)	135	-85 (-98 to -70)
2040-2059	60 (38 to 82)	31 (-17 to 79)	123	-63 (-85 to -41)
2060-2079	37 (28 to 68)	-19 (-39 to 48)	NA	NA
2080-2099	51 (37 to 101)	11 (-19 to 120)	NA	NA

Continued on next page

Table E.4 Projected EVN personnel requirements – continued from previous page

George Town

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	56 (49 to 64)	-58 (-63 to -52)	123	-67 (-74 to -59)
2000-2019	64 (60 to 69)	-52 (-55 to -48)	128	-64 (-68 to -59)
2020-2039	102 (93 to 118)	-24 (-31 to -12)	112	-10 (-19 to 6)
2040-2059	126 (109 to 155)	-6 (-19 to 15)	99	27 (10 to 56)
2060-2079	144 (106 to 275)	7 (-21 to 104)	NA	NA
2080-2099	262 (182 to 470)	95 (35 to 249)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	75 (65 to 85)	-44 (-51 to -37)	123	-48 (-58 to -38)
2000-2019	85 (79 to 92)	-37 (-41 to -31)	128	-43 (-49 to -36)
2020-2039	134 (122 to 156)	0 (-9 to 16)	121	13 (1 to 35)
2040-2059	166 (143 to 205)	23 (6 to 52)	111	55 (32 to 94)
2060-2079	186 (137 to 357)	38 (2 to 165)	NA	NA
2080-2099	339 (236 to 609)	152 (75 to 352)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	119 (104 to 135)	-11 (-22 to 0)	123	-4 (-19 to 12)
2000-2019	135 (127 to 146)	0 (-5 to 9)	128	7 (-1 to 18)
2020-2039	215 (197 to 251)	60 (46 to 86)	131	84 (66 to 120)
2040-2059	267 (230 to 329)	98 (71 to 144)	127	140 (103 to 202)
2060-2079	301 (221 to 577)	123 (64 to 328)	NA	NA
2080-2099	548 (382 to 986)	306 (183 to 631)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Glamorgan/Spring Bay

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	70 (68 to 75)	-53 (-54 to -50)	163	-93 (-95 to -88)
2000-2019	74 (69 to 82)	-50 (-54 to -45)	170	-96 (-101 to -88)
2020-2039	75 (70 to 98)	-50 (-53 to -34)	132	-57 (-62 to -34)
2040-2059	71 (64 to 103)	-52 (-57 to -31)	108	-37 (-44 to -5)
2060-2079	43 (35 to 49)	-71 (-76 to -67)	NA	NA
2080-2099	46 (36 to 59)	-69 (-76 to -60)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	100 (96 to 106)	-33 (-36 to -29)	163	-63 (-67 to -57)
2000-2019	102 (94 to 117)	-31 (-37 to -21)	170	-68 (-76 to -53)
2020-2039	112 (99 to 147)	-25 (-34 to -2)	132	-20 (-33 to 15)
2040-2059	110 (94 to 152)	-26 (-37 to 2)	108	2 (-14 to 44)
2060-2079	92 (75 to 104)	-38 (-50 to -30)	NA	NA
2080-2099	99 (78 to 127)	-34 (-48 to -15)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	146 (136 to 157)	-2 (-9 to 5)	163	-17 (-27 to -6)
2000-2019	150 (135 to 171)	0 (-9 to 14)	170	-20 (-35 to 1)
2020-2039	172 (147 to 223)	15 (-2 to 49)	152	20 (-5 to 71)
2040-2059	173 (144 to 230)	16 (-4 to 54)	138	35 (6 to 92)
2060-2079	176 (145 to 200)	18 (-3 to 34)	NA	NA
2080-2099	190 (150 to 244)	27 (0 to 63)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Glenorchy

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	91 (91 to 91)	-53 (-53 to -53)	100	-9 (-9 to -9)
2000-2019	121 (121 to 121)	-37 (-37 to -37)	104	17 (17 to 17)
2020-2039	142 (142 to 142)	-26 (-26 to -26)	109	33 (33 to 33)
2040-2059	178 (178 to 178)	-8 (-8 to -8)	108	70 (70 to 70)
2060-2079	228 (228 to 228)	18 (18 to 18)	NA	NA
2080-2099	298 (298 to 298)	54 (54 to 54)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	114 (114 to 114)	-41 (-41 to -41)	100	14 (14 to 14)
2000-2019	151 (151 to 151)	-22 (-22 to -22)	104	47 (47 to 47)
2020-2039	177 (177 to 177)	-8 (-8 to -8)	111	66 (66 to 66)
2040-2059	223 (223 to 223)	15 (15 to 15)	113	110 (110 to 110)
2060-2079	284 (284 to 284)	47 (47 to 47)	NA	NA
2080-2099	370 (370 to 370)	91 (91 to 91)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	145 (145 to 145)	-25 (-25 to -25)	100	45 (45 to 45)
2000-2019	194 (194 to 194)	NA	104	90 (90 to 90)
2020-2039	228 (228 to 228)	18 (18 to 18)	115	113 (113 to 113)
2040-2059	285 (285 to 285)	47 (47 to 47)	117	168 (168 to 168)
2060-2079	357 (357 to 357)	85 (85 to 85)	NA	NA
2080-2099	466 (466 to 466)	141 (141 to 141)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Hobart

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	46 (44 to 48)	-79 (-80 to -78)	113	-67 (-69 to -65)
2000-2019	52 (52 to 53)	-76 (-76 to -76)	118	-66 (-66 to -65)
2020-2039	59 (59 to 59)	-73 (-73 to -73)	113	-54 (-54 to -54)
2040-2059	82 (77 to 86)	-63 (-65 to -61)	106	-24 (-29 to -20)
2060-2079	100 (96 to 105)	-55 (-57 to -53)	NA	NA
2080-2099	129 (115 to 142)	-42 (-49 to -37)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	76 (75 to 78)	-66 (-66 to -65)	113	-37 (-38 to -35)
2000-2019	87 (86 to 89)	-61 (-61 to -60)	118	-31 (-32 to -29)
2020-2039	99 (99 to 99)	-56 (-56 to -56)	122	-23 (-23 to -23)
2040-2059	137 (130 to 144)	-39 (-42 to -36)	120	17 (10 to 24)
2060-2079	163 (156 to 171)	-27 (-30 to -24)	NA	NA
2080-2099	210 (188 to 232)	-7 (-16 to 3)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	199 (194 to 205)	-11 (-14 to -9)	113	86 (81 to 92)
2000-2019	226 (224 to 230)	0 (0 to 2)	118	108 (106 to 112)
2020-2039	259 (259 to 259)	15 (15 to 15)	130	129 (129 to 129)
2040-2059	354 (338 to 372)	57 (50 to 65)	131	223 (207 to 241)
2060-2079	401 (383 to 420)	78 (70 to 86)	NA	NA
2080-2099	517 (461 to 571)	129 (104 to 153)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Huon Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	62 (54 to 68)	-64 (-68 to -60)	293	-231 (-239 to -225)
2000-2019	69 (57 to 83)	-60 (-67 to -52)	306	-237 (-249 to -223)
2020-2039	90 (73 to 106)	-47 (-57 to -38)	303	-213 (-230 to -197)
2040-2059	111 (89 to 150)	-35 (-48 to -13)	285	-174 (-196 to -135)
2060-2079	95 (82 to 116)	-45 (-52 to -32)	NA	NA
2080-2099	136 (92 to 160)	-21 (-46 to -7)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	118 (102 to 130)	-31 (-41 to -24)	293	-175 (-191 to -163)
2000-2019	132 (109 to 159)	-23 (-36 to -8)	306	-174 (-197 to -147)
2020-2039	174 (141 to 206)	1 (-18 to 20)	336	-162 (-195 to -130)
2040-2059	219 (178 to 293)	27 (3 to 70)	338	-119 (-160 to -45)
2060-2079	202 (174 to 246)	17 (1 to 43)	NA	NA
2080-2099	288 (196 to 339)	67 (14 to 96)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	153 (132 to 168)	-11 (-23 to -2)	293	-140 (-161 to -125)
2000-2019	173 (144 to 206)	0 (-16 to 20)	306	-133 (-162 to -100)
2020-2039	227 (187 to 268)	32 (9 to 55)	368	-141 (-181 to -100)
2040-2059	286 (235 to 377)	66 (36 to 118)	388	-102 (-153 to -11)
2060-2079	250 (215 to 303)	45 (25 to 76)	NA	NA
2080-2099	356 (241 to 419)	106 (40 to 143)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Kentish

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (10 to 11)	-81 (-82 to -81)	158	-147 (-148 to -147)
2000-2019	14 (13 to 16)	-75 (-77 to -72)	165	-151 (-152 to -149)
2020-2039	16 (15 to 19)	-72 (-74 to -67)	164	-148 (-149 to -145)
2040-2059	19 (17 to 21)	-67 (-70 to -63)	155	-136 (-138 to -134)
2060-2079	12 (10 to 15)	-79 (-82 to -74)	NA	NA
2080-2099	17 (15 to 22)	-70 (-74 to -62)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	24 (22 to 26)	-58 (-62 to -55)	158	-134 (-136 to -132)
2000-2019	31 (27 to 34)	-46 (-53 to -41)	165	-134 (-138 to -131)
2020-2039	35 (32 to 42)	-39 (-44 to -27)	181	-146 (-149 to -139)
2040-2059	43 (38 to 49)	-25 (-34 to -15)	186	-143 (-148 to -137)
2060-2079	35 (30 to 45)	-39 (-48 to -22)	NA	NA
2080-2099	51 (44 to 66)	-12 (-24 to 14)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	45 (41 to 49)	-22 (-29 to -15)	158	-113 (-117 to -109)
2000-2019	58 (52 to 65)	0 (-10 to 13)	165	-107 (-113 to -100)
2020-2039	67 (61 to 81)	16 (6 to 40)	201	-134 (-140 to -120)
2040-2059	81 (72 to 96)	40 (25 to 66)	212	-131 (-140 to -116)
2060-2079	74 (64 to 97)	28 (11 to 68)	NA	NA
2080-2099	110 (93 to 140)	90 (61 to 142)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

King Island

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	29 (29 to 30)	-45 (-45 to -43)	82	-53 (-53 to -52)
2000-2019	28 (26 to 33)	-47 (-50 to -37)	84	-56 (-58 to -51)
2020-2039	28 (25 to 37)	-47 (-52 to -30)	66	-38 (-41 to -29)
2040-2059	29 (23 to 38)	-45 (-56 to -28)	55	-26 (-32 to -17)
2060-2079	5 (4 to 6)	-90 (-92 to -88)	NA	NA
2080-2099	8 (6 to 10)	-84 (-88 to -81)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	37 (35 to 38)	-30 (-33 to -28)	82	-45 (-47 to -44)
2000-2019	34 (32 to 41)	-35 (-39 to -22)	84	-50 (-52 to -43)
2020-2039	36 (30 to 46)	-32 (-43 to -13)	73	-37 (-43 to -27)
2040-2059	36 (29 to 49)	-32 (-45 to -7)	64	-28 (-35 to -15)
2060-2079	9 (7 to 11)	-83 (-86 to -79)	NA	NA
2080-2099	16 (12 to 20)	-69 (-77 to -62)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	53 (52 to 56)	0 (-1 to 6)	82	-29 (-30 to -26)
2000-2019	53 (50 to 62)	0 (-5 to 17)	84	-31 (-34 to -22)
2020-2039	62 (51 to 75)	17 (-3 to 42)	80	-18 (-29 to -5)
2040-2059	67 (56 to 82)	27 (6 to 55)	74	-7 (-18 to 8)
2060-2079	39 (29 to 50)	-26 (-45 to -5)	NA	NA
2080-2099	70 (50 to 87)	33 (-5 to 65)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Kingborough

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	61 (55 to 68)	-57 (-61 to -52)	246	-185 (-191 to -178)
2000-2019	71 (67 to 75)	-50 (-52 to -47)	258	-187 (-191 to -183)
2020-2039	82 (74 to 90)	-42 (-47 to -36)	283	-201 (-209 to -193)
2040-2059	112 (95 to 122)	-21 (-33 to -14)	289	-177 (-194 to -167)
2060-2079	108 (94 to 137)	-23 (-33 to -3)	NA	NA
2080-2099	134 (125 to 145)	-5 (-11 to 3)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	85 (76 to 93)	-40 (-46 to -34)	246	-161 (-170 to -153)
2000-2019	97 (91 to 103)	-31 (-35 to -27)	258	-161 (-167 to -155)
2020-2039	113 (102 to 122)	-20 (-28 to -14)	312	-199 (-210 to -190)
2040-2059	155 (133 to 167)	10 (-6 to 18)	335	-180 (-202 to -168)
2060-2079	154 (134 to 196)	9 (-5 to 39)	NA	NA
2080-2099	191 (178 to 207)	35 (26 to 46)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	122 (111 to 135)	-14 (-21 to -4)	246	-124 (-135 to -111)
2000-2019	142 (134 to 149)	0 (-5 to 5)	258	-116 (-124 to -109)
2020-2039	165 (150 to 176)	17 (6 to 24)	340	-175 (-190 to -164)
2040-2059	224 (195 to 242)	58 (38 to 71)	384	-160 (-189 to -142)
2060-2079	226 (197 to 288)	60 (39 to 103)	NA	NA
2080-2099	281 (262 to 305)	98 (85 to 115)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Latrobe

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	19 (16 to 21)	-62 (-68 to -58)	122	-103 (-106 to -101)
2000-2019	19 (16 to 22)	-62 (-68 to -56)	127	-108 (-111 to -105)
2020-2039	28 (26 to 31)	-45 (-49 to -39)	141	-113 (-115 to -110)
2040-2059	31 (27 to 34)	-39 (-47 to -33)	139	-108 (-112 to -105)
2060-2079	33 (29 to 38)	-35 (-43 to -25)	NA	NA
2080-2099	57 (50 to 70)	12 (-1 to 38)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	34 (28 to 37)	-33 (-45 to -27)	122	-88 (-94 to -85)
2000-2019	33 (28 to 37)	-35 (-45 to -27)	127	-94 (-99 to -90)
2020-2039	49 (44 to 53)	-3 (-13 to 4)	164	-115 (-120 to -111)
2040-2059	53 (47 to 60)	4 (-7 to 18)	177	-124 (-130 to -117)
2060-2079	57 (50 to 66)	12 (-1 to 30)	NA	NA
2080-2099	98 (86 to 121)	93 (69 to 138)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	51 (43 to 55)	0 (-15 to 8)	122	-71 (-79 to -67)
2000-2019	51 (43 to 57)	0 (-15 to 12)	127	-76 (-84 to -70)
2020-2039	75 (69 to 82)	48 (36 to 61)	185	-110 (-116 to -103)
2040-2059	83 (73 to 93)	63 (44 to 83)	210	-127 (-137 to -117)
2060-2079	83 (72 to 95)	63 (42 to 87)	NA	NA
2080-2099	143 (125 to 176)	181 (146 to 246)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Launceston

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	217 (204 to 258)	-50 (-53 to -40)	228	-11 (-24 to 30)
2000-2019	254 (208 to 296)	-41 (-52 to -32)	239	15 (-31 to 57)
2020-2039	415 (347 to 515)	-5 (-20 to 18)	244	171 (103 to 271)
2040-2059	432 (383 to 471)	-1 (-12 to 8)	241	191 (142 to 230)
2060-2079	446 (381 to 505)	3 (-12 to 16)	NA	NA
2080-2099	756 (655 to 862)	73 (50 to 98)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	321 (302 to 381)	-26 (-30 to -12)	228	93 (74 to 153)
2000-2019	375 (309 to 438)	-14 (-29 to 1)	239	136 (70 to 199)
2020-2039	614 (513 to 762)	41 (18 to 75)	253	361 (260 to 509)
2040-2059	640 (566 to 697)	47 (30 to 60)	254	386 (312 to 443)
2060-2079	656 (559 to 743)	51 (28 to 71)	NA	NA
2080-2099	1112 (963 to 1267)	155 (121 to 190)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	374 (351 to 444)	-14 (-19 to 2)	228	146 (123 to 216)
2000-2019	437 (360 to 509)	0 (-17 to 17)	239	198 (121 to 270)
2020-2039	714 (597 to 885)	64 (37 to 103)	260	454 (337 to 625)
2040-2059	744 (660 to 811)	71 (52 to 86)	268	476 (392 to 543)
2060-2079	756 (645 to 856)	73 (48 to 96)	NA	NA
2080-2099	1282 (1110 to 1461)	194 (155 to 235)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Meander Valley

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	35 (29 to 42)	-69 (-74 to -63)	242	-207 (-213 to -200)
2000-2019	45 (40 to 49)	-60 (-65 to -57)	253	-208 (-213 to -204)
2020-2039	57 (44 to 79)	-50 (-61 to -31)	227	-170 (-183 to -148)
2040-2059	65 (53 to 79)	-43 (-53 to -31)	203	-138 (-150 to -124)
2060-2079	68 (58 to 81)	-40 (-49 to -29)	NA	NA
2080-2099	107 (86 to 128)	-6 (-25 to 12)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	57 (46 to 67)	-50 (-60 to -41)	242	-185 (-196 to -175)
2000-2019	72 (64 to 78)	-37 (-44 to -32)	253	-181 (-189 to -175)
2020-2039	92 (72 to 127)	-19 (-37 to 11)	239	-147 (-167 to -112)
2040-2059	104 (85 to 126)	-9 (-26 to 10)	217	-113 (-132 to -91)
2060-2079	108 (92 to 130)	-6 (-19 to 14)	NA	NA
2080-2099	170 (136 to 204)	48 (19 to 78)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	92 (75 to 107)	-19 (-34 to -6)	242	-150 (-167 to -135)
2000-2019	115 (103 to 125)	0 (-10 to 9)	253	-138 (-150 to -128)
2020-2039	147 (114 to 203)	28 (0 to 77)	249	-102 (-135 to -46)
2040-2059	167 (136 to 200)	46 (19 to 74)	237	-70 (-101 to -37)
2060-2079	165 (140 to 197)	44 (22 to 72)	NA	NA
2080-2099	260 (208 to 311)	127 (81 to 171)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Northern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	58 (46 to 70)	-60 (-68 to -52)	332	-274 (-286 to -262)
2000-2019	68 (55 to 94)	-54 (-62 to -36)	347	-279 (-292 to -253)
2020-2039	119 (71 to 224)	-19 (-52 to 52)	322	-203 (-251 to -98)
2040-2059	95 (71 to 127)	-35 (-52 to -14)	289	-194 (-218 to -162)
2060-2079	90 (62 to 168)	-39 (-58 to 14)	NA	NA
2080-2099	127 (98 to 161)	-14 (-33 to 9)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	87 (68 to 107)	-41 (-54 to -27)	332	-245 (-264 to -225)
2000-2019	104 (81 to 145)	-29 (-45 to -2)	347	-243 (-266 to -202)
2020-2039	187 (109 to 363)	27 (-26 to 146)	334	-147 (-225 to 29)
2040-2059	147 (109 to 202)	0 (-26 to 37)	306	-159 (-197 to -104)
2060-2079	149 (103 to 280)	1 (-30 to 90)	NA	NA
2080-2099	211 (164 to 268)	43 (11 to 82)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	123 (95 to 154)	-16 (-35 to 5)	332	-209 (-237 to -178)
2000-2019	148 (114 to 209)	0 (-22 to 42)	347	-199 (-233 to -138)
2020-2039	275 (156 to 538)	86 (6 to 264)	346	-71 (-190 to 192)
2040-2059	213 (158 to 294)	44 (7 to 99)	326	-113 (-168 to -32)
2060-2079	225 (155 to 422)	53 (5 to 186)	NA	NA
2080-2099	318 (246 to 404)	115 (67 to 173)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Sorell

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	77 (73 to 79)	-56 (-58 to -55)	168	-91 (-95 to -89)
2000-2019	84 (80 to 88)	-52 (-55 to -50)	176	-92 (-96 to -88)
2020-2039	107 (93 to 118)	-39 (-47 to -33)	195	-88 (-102 to -77)
2040-2059	121 (103 to 137)	-32 (-42 to -23)	200	-79 (-97 to -63)
2060-2079	66 (55 to 78)	-62 (-69 to -56)	NA	NA
2080-2099	68 (63 to 78)	-61 (-64 to -56)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	99 (93 to 102)	-44 (-47 to -42)	168	-69 (-75 to -66)
2000-2019	108 (100 to 112)	-39 (-43 to -37)	176	-68 (-76 to -64)
2020-2039	135 (117 to 149)	-24 (-34 to -16)	208	-73 (-91 to -59)
2040-2059	155 (133 to 175)	-12 (-25 to -1)	224	-69 (-91 to -49)
2060-2079	98 (82 to 115)	-44 (-53 to -35)	NA	NA
2080-2099	101 (93 to 116)	-43 (-47 to -34)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	167 (157 to 174)	-6 (-11 to -2)	168	-1 (-11 to 6)
2000-2019	178 (170 to 185)	0 (-4 to 4)	176	2 (-6 to 9)
2020-2039	223 (197 to 247)	26 (11 to 39)	216	7 (-19 to 31)
2040-2059	258 (228 to 285)	45 (29 to 61)	236	22 (-8 to 49)
2060-2079	137 (114 to 160)	-23 (-35 to -10)	NA	NA
2080-2099	141 (129 to 162)	-20 (-27 to -8)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Southern Midlands

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	65 (61 to 69)	-61 (-63 to -58)	255	-190 (-194 to -186)
2000-2019	77 (66 to 100)	-53 (-60 to -40)	267	-190 (-201 to -167)
2020-2039	102 (78 to 150)	-38 (-53 to -10)	269	-167 (-191 to -119)
2040-2059	98 (82 to 120)	-41 (-50 to -28)	253	-155 (-171 to -133)
2060-2079	77 (60 to 107)	-53 (-64 to -35)	NA	NA
2080-2099	89 (71 to 135)	-46 (-57 to -19)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	87 (80 to 93)	-47 (-52 to -44)	255	-168 (-175 to -162)
2000-2019	104 (87 to 138)	-37 (-47 to -17)	267	-163 (-180 to -129)
2020-2039	140 (105 to 214)	-16 (-37 to 29)	287	-147 (-182 to -73)
2040-2059	132 (112 to 161)	-20 (-32 to -3)	282	-150 (-170 to -121)
2060-2079	120 (93 to 168)	-28 (-44 to 1)	NA	NA
2080-2099	140 (111 to 213)	-16 (-33 to 28)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	139 (126 to 153)	-16 (-24 to -8)	255	-116 (-129 to -102)
2000-2019	167 (137 to 234)	0 (-17 to 41)	267	-100 (-130 to -33)
2020-2039	237 (173 to 383)	42 (4 to 130)	305	-68 (-132 to 78)
2040-2059	217 (183 to 267)	30 (10 to 60)	311	-94 (-128 to -44)
2060-2079	245 (191 to 344)	47 (15 to 106)	NA	NA
2080-2099	286 (227 to 434)	72 (36 to 160)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Tasman

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	11 (11 to 11)	-77 (-77 to -77)	82	-71 (-71 to -71)
2000-2019	12 (12 to 12)	-75 (-75 to -75)	84	-72 (-72 to -72)
2020-2039	14 (14 to 14)	-70 (-70 to -70)	78	-64 (-64 to -64)
2040-2059	15 (15 to 15)	-68 (-68 to -68)	73	-58 (-58 to -58)
2060-2079	22 (22 to 22)	-54 (-54 to -54)	NA	NA
2080-2099	23 (23 to 23)	-52 (-52 to -52)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	22 (22 to 22)	-54 (-54 to -54)	82	-60 (-60 to -60)
2000-2019	23 (23 to 23)	-52 (-52 to -52)	84	-61 (-61 to -61)
2020-2039	27 (27 to 28)	-43 (-43 to -41)	85	-58 (-58 to -57)
2040-2059	30 (30 to 31)	-37 (-37 to -35)	85	-55 (-55 to -54)
2060-2079	41 (41 to 41)	-14 (-14 to -14)	NA	NA
2080-2099	43 (43 to 43)	-10 (-10 to -10)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	45 (45 to 45)	-6 (-6 to -6)	82	-37 (-37 to -37)
2000-2019	48 (48 to 49)	0 (0 to 3)	84	-36 (-36 to -35)
2020-2039	57 (57 to 58)	19 (19 to 21)	93	-36 (-36 to -35)
2040-2059	65 (64 to 65)	36 (34 to 36)	94	-29 (-30 to -29)
2060-2079	81 (81 to 81)	69 (69 to 69)	NA	NA
2080-2099	86 (86 to 86)	80 (80 to 80)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Waratah/Wynyard

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	28 (26 to 31)	-65 (-67 to -61)	150	-122 (-124 to -119)
2000-2019	36 (30 to 38)	-55 (-62 to -52)	157	-121 (-127 to -119)
2020-2039	43 (36 to 51)	-46 (-55 to -36)	150	-107 (-114 to -99)
2040-2059	51 (44 to 56)	-36 (-44 to -30)	139	-88 (-95 to -83)
2060-2079	48 (34 to 57)	-40 (-57 to -28)	NA	NA
2080-2099	69 (54 to 89)	-13 (-32 to 12)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	37 (34 to 41)	-53 (-57 to -48)	150	-113 (-116 to -109)
2000-2019	46 (39 to 51)	-42 (-51 to -36)	157	-111 (-118 to -106)
2020-2039	58 (48 to 67)	-27 (-40 to -16)	157	-99 (-109 to -90)
2040-2059	67 (59 to 75)	-16 (-26 to -6)	148	-81 (-89 to -73)
2060-2079	65 (46 to 77)	-18 (-42 to -3)	NA	NA
2080-2099	94 (73 to 121)	18 (-8 to 52)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	63 (59 to 71)	-21 (-26 to -11)	150	-87 (-91 to -79)
2000-2019	80 (68 to 84)	0 (-15 to 6)	157	-77 (-89 to -73)
2020-2039	97 (83 to 113)	22 (4 to 42)	165	-68 (-82 to -52)
2040-2059	112 (99 to 125)	40 (24 to 57)	159	-47 (-60 to -34)
2060-2079	105 (73 to 125)	32 (-8 to 57)	NA	NA
2080-2099	152 (118 to 195)	90 (48 to 144)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

West Coast

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	65 (60 to 69)	-48 (-52 to -45)	114	-49 (-54 to -45)
2000-2019	63 (55 to 72)	-50 (-56 to -43)	119	-56 (-64 to -47)
2020-2039	64 (54 to 76)	-49 (-57 to -40)	91	-27 (-37 to -15)
2040-2059	65 (59 to 78)	-48 (-53 to -38)	84	-19 (-25 to -6)
2060-2079	48 (42 to 55)	-62 (-66 to -56)	NA	NA
2080-2099	67 (59 to 79)	-47 (-53 to -37)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	81 (75 to 87)	-36 (-40 to -31)	114	-33 (-39 to -27)
2000-2019	82 (71 to 93)	-35 (-44 to -26)	119	-37 (-48 to -26)
2020-2039	84 (73 to 102)	-33 (-42 to -19)	93	-9 (-20 to 9)
2040-2059	89 (80 to 105)	-29 (-37 to -17)	85	4 (-5 to 20)
2060-2079	73 (64 to 84)	-42 (-49 to -33)	NA	NA
2080-2099	103 (91 to 122)	-18 (-28 to -3)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	122 (110 to 133)	-3 (-13 to 5)	114	8 (-4 to 19)
2000-2019	127 (108 to 145)	0 (-14 to 15)	119	8 (-11 to 26)
2020-2039	137 (120 to 167)	8 (-5 to 32)	99	38 (21 to 68)
2040-2059	155 (139 to 178)	23 (10 to 41)	91	64 (48 to 87)
2060-2079	144 (125 to 165)	14 (-1 to 30)	NA	NA
2080-2099	202 (179 to 240)	60 (41 to 89)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

West Tamar

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	39 (37 to 45)	-63 (-65 to -58)	200	-161 (-163 to -155)
2000-2019	42 (40 to 43)	-61 (-62 to -60)	209	-167 (-169 to -166)
2020-2039	65 (61 to 74)	-39 (-43 to -31)	201	-136 (-140 to -127)
2040-2059	71 (67 to 78)	-34 (-37 to -27)	185	-114 (-118 to -107)
2060-2079	63 (59 to 70)	-41 (-45 to -35)	NA	NA
2080-2099	109 (99 to 119)	1 (-8 to 11)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	71 (67 to 79)	-34 (-37 to -26)	200	-129 (-133 to -121)
2000-2019	75 (71 to 78)	-30 (-34 to -27)	209	-134 (-138 to -131)
2020-2039	118 (111 to 135)	10 (3 to 25)	212	-94 (-101 to -77)
2040-2059	129 (122 to 141)	20 (13 to 31)	201	-72 (-79 to -60)
2060-2079	120 (112 to 133)	12 (4 to 24)	NA	NA
2080-2099	207 (188 to 228)	92 (75 to 112)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	104 (97 to 116)	-3 (-10 to 8)	200	-96 (-103 to -84)
2000-2019	108 (105 to 114)	0 (-2 to 6)	209	-101 (-104 to -95)
2020-2039	172 (161 to 197)	60 (50 to 83)	222	-50 (-61 to -25)
2040-2059	186 (177 to 205)	73 (64 to 90)	219	-33 (-42 to -14)
2060-2079	174 (162 to 192)	62 (50 to 78)	NA	NA
2080-2099	300 (272 to 329)	178 (152 to 205)	NA	NA

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Table E.4 Projected EVN personnel requirements – continued from previous page

Tasmania

Low incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	1774 (1640 to 1949)	-60 (-63 to -56)	4782	-3008 (-3142 to -2833)
2000-2019	2050 (1862 to 2261)	-54 (-58 to -50)	4992	-2942 (-3130 to -2731)
2020-2039	2800 (2397 to 3488)	-38 (-47 to -23)	4741	-1941 (-2344 to -1253)
2040-2059	2999 (2649 to 3482)	-33 (-41 to -23)	4423	-1424 (-1774 to -941)
2060-2079	3077 (2585 to 3967)	-32 (-42 to -12)	NA	NA
2080-2099	4377 (3745 to 5463)	-3 (-17 to 21)	NA	NA

Typical year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	2587 (2375 to 2849)	-42 (-47 to -37)	4782	-2195 (-2407 to -1933)
2000-2019	2985 (2692 to 3312)	-34 (-40 to -26)	4992	-2007 (-2300 to -1680)
2020-2039	4152 (3535 to 5223)	-8 (-21 to 16)	5039	-887 (-1504 to 184)
2040-2059	4447 (3931 to 5178)	-1 (-13 to 15)	4883	-436 (-952 to 295)
2060-2079	4696 (3940 to 6073)	4 (-13 to 35)	NA	NA
2080-2099	6696 (5704 to 8379)	48 (26 to 85)	NA	NA

High incident year

Period	Personnel Required	Change From Current (%)	Personnel Available	Recruitment Target
1980-1999	3906 (3572 to 4340)	-13 (-21 to -4)	4782	-876 (-1210 to -442)
2000-2019	4532 (4092 to 5036)	0 (-9 to 12)	4992	-460 (-900 to 44)
2020-2039	6336 (5385 to 8122)	40 (19 to 80)	5363	973 (22 to 2759)
2040-2059	6820 (6038 to 7934)	51 (34 to 76)	5398	1422 (640 to 2536)
2060-2079	7276 (6069 to 9594)	61 (34 to 112)	NA	NA
2080-2099	10303 (8724 to 13112)	128 (93 to 190)	NA	NA