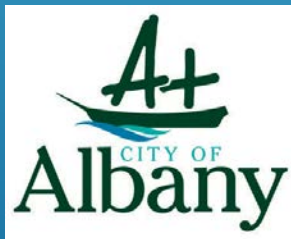




BUILDING BUSHFIRE RESILIENCE IN THE GREAT SOUTHERN



*Shire of Denmark, City of Albany, Shire of
Plantagenet*



Building bushfire resilience in communities – National strategy for disaster resilience

- “State governments and municipal councils to adopt increased or improved protective management, emergency management and advisory roles.”
- Strive to recognize and understand the risks disasters pose to their own and their communities interests.
- Leaders drive development of partnerships and networks to build resilience at government, business, neighborhood and community levels.



What is the “Building Resilience In the Great Southern” [BRIGS] Project?

- The Western Australian and Commonwealth governments have a National Partnership Agreement for Natural Disaster Resilience that delivers the National Disaster Resilience Program (NDRP).
- Application was submitted to the NDRP to fund the three local governments to enhance the evacuation planning and bushfire risk mitigation strategies over 8 precincts.
- Aimed to implement sustained resilience or disaster mitigation strategies that directly benefit the WA community.
- This project reduces identified risks and closes capability gaps, in an effort to reduce future post-disaster funding needs.
- This project aided in the development of a rigorous physical risk mitigation program where possible and develops a greater understanding of bushfire risk in the community.



What is the “Building Resilience In the Great Southern” [BRIGS] Project?

8 precincts in 3 LGA's

- Goode Beach (CoA);
- Little Grove and Big Grove (CoA);
- Bayonet Head (CoA);
- Peaceful Bay (SoD);
- Ocean Beach (SoD);
- Weedon Hill (SoD);
- Kendenup (SoP); and
- Mount Barker Hill (SoP).



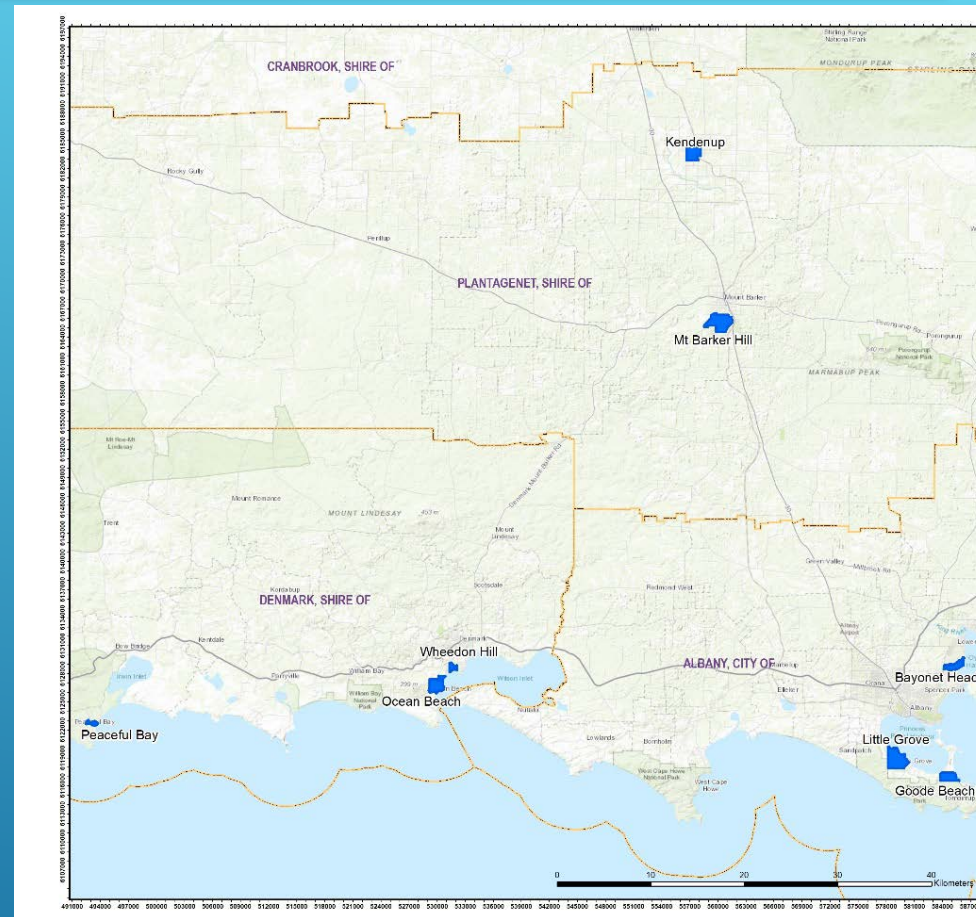
The 8 precincts identified for the project were based on the following parameters:

- High fuel loads and extreme bushfire risks;
- Limited access and egress for the communities to evacuate (one-way access);
- High population density in summer (extreme risk) period
- Legacy planning issues. Communities not consistent with the current SPP 3.7

What is the “Building Resilience In the Great Southern” [BRIGS] Project?

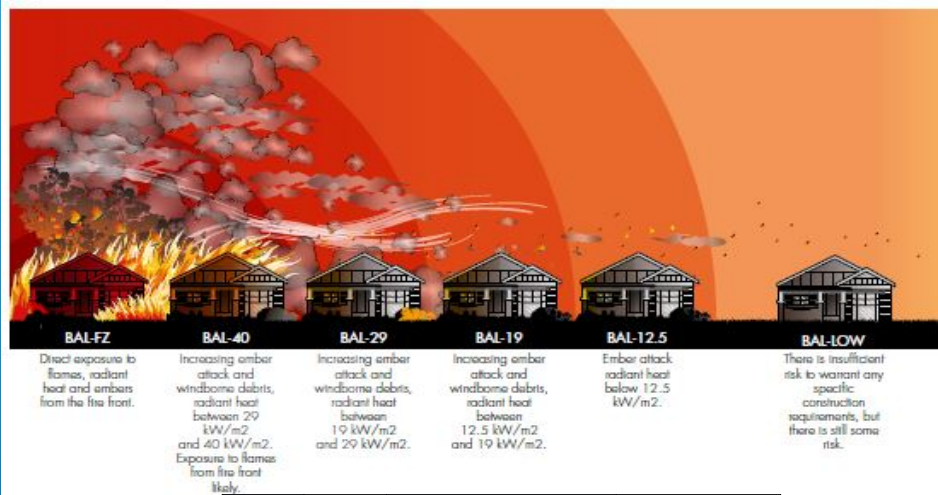
Key processes


- Applying a AS3959 BAL contouring methodological to define and map bushfire risks to our communities.
- CSIRO Spark modelling
- Identification of vulnerable communities where evacuation may be compromised.
- Identifying areas for possible community refuge. Develop Works Programs and treatment schedules with priorities developed.
- Review of gazetted fire notice in each LGA.
- Stakeholder engagement – DBCA, WCWA, DFES, LGA, DoEd,
- Public consultation – during project (in precinct, public sessions and post project through implementation).




AS3959-2018 Measures Bushfire Fuels

- AS3959 provides a measure of radiant heat flux (impact) on a building.
- AS3959 is also used as a planning tool to measure bushfire risk.
- Uses a classification system according to vegetation structure.
- 1Kw/m² is the radiant heat from your household electric bar heater..



Plot	11	Classification or Exclusion Clause	Grassland Type G
			
<p>Location: To the west external to the subject site and internal to the west of Peppermint Way in easement. Also internal to the south east to the north of Old Peaceful Bay Road.</p> <p>Description: Grazed paddocks of mixed pasture and unmanaged lots with introduced species such as Kikuyu, Hibbertia, Conyza etc.</p> <p>Average vegetation height: 200-300mm.</p> <p>Vegetation Coverage: <10% trees.</p> <p>Available fuel loading: <4.5t/ha.</p> <p>Effective slope: Upslope/flat.</p>			

Plot	7	Classification or Exclusion Clause	Forest Type A
			
<p>Location: Throughout the subject site internal and external.</p> <p>Dominant species & description: Peppermint Forest, with mid storey species of <i>Callistachys lanceolatum</i> (Native Willow) juvenile trees, Banksia, Acacia, Kunzea, Hibbertia, Melaleuca and Leocopogon. Understorey of Kangaroo paws, native sedges and herbs. Occasional Eucalypts.</p> <p>Average vegetation height: 12-16m (Peppermint and J/M).</p> <p>Vegetation Coverage: >30-70% foliage cover.</p> <p>Available fuel loading: 25-35 t/ha.</p> <p>Effective slopes: Downslope >0-5 degrees.</p>			


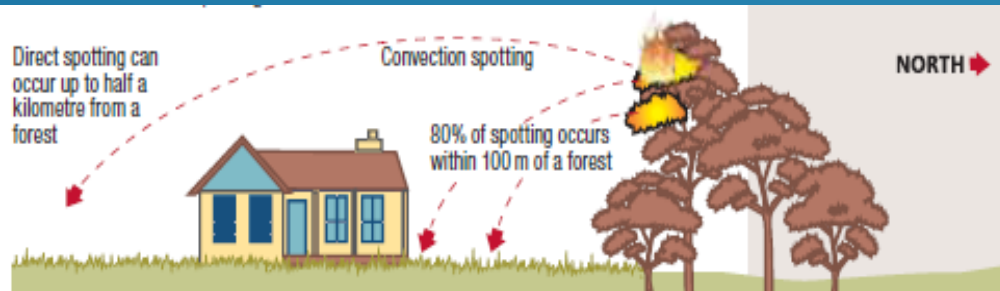
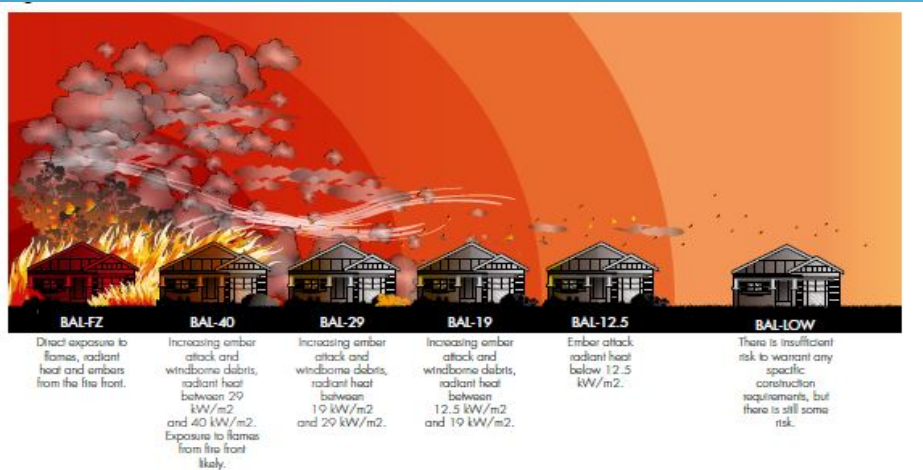
Plot	5	Classification or Exclusion Clause	Scrub Type D
			
<p>Location: Located external to the precinct to the east of the caravan park. Located on northern side of high coastal dune.</p> <p>Dominant species & description: thickets of Coastal heaths of Acacia, <i>Spyridium globulosum</i>, Melaleuca and various herbs (tall coastal scrubs) Occasional tree to 5m-6m on disturbed edges (edge effect).</p> <p>Average vegetation height: 3m.</p> <p>Vegetation Coverage: >30% foliage cover</p> <p>Available fuel loading: 25t/ha</p> <p>Effective slope: Downslope >15-20 degrees.</p>			

Photo Id 33. View of Scrub Type D located to the east of the Caravan Park, along boundary of reserve and Caravan Park. Note 1m high fence.

AS3959-2018 Measures Bushfire Fuels

- Once vegetation structure and slope is classified uses a matrix to determine the impact of bushfire onto a building or subject site.
- Fire Danger Index (FDI) of 80.



31

AS 3959:2018

TABLE 2.5
DETERMINATION OF BUSHFIRE ATTACK LEVEL (BAL)—FDI 80 (1090 K)

Vegetation classification	BALs				
	BAL—FZ	BAL—40	BAL—29	BAL—19	BAL—12.5
	Distance (m) of the site from the predominant vegetation class				
	All upslopes and flat land (0 degrees)				
A. Forest	<16	16–<21	21–<31	31–<42	42–<100
B. Woodland	<10	10–<14	14–<20	20–<29	29–<100
C. Shrubland	<7	7–<9	9–<13	13–<19	19–<100
D. Scrub	<10	10–<13	13–<19	19–<27	27–<100
E. Mallee/Mulga	<6	6–<8	8–<12	12–<17	17–<100
F. Rainforest	<6	6–<9	9–<13	13–<19	19–<100
G. Grassland	<6	6–<8	8–<12	12–<17	17–<50
	Downslope >0 to 5 degrees				
A. Forest	<20	20–<27	27–<37	37–<50	50–<100
B. Woodland	<13	13–<17	17–<25	25–<35	35–<100
C. Shrubland	<7	7–<10	10–<15	15–<22	22–<100
D. Scrub	<11	11–<15	15–<22	22–<31	31–<100
E. Mallee/Mulga	<7	7–<9	9–<13	13–<20	20–<100
F. Rainforest	<8	8–<11	11–<17	17–<24	24–<100
G. Grassland	<7	7–<9	9–<14	14–<20	20–<50
	Downslope >5 to 10 degrees				
A. Forest	<26	26–<33	33–<46	46–<61	61–<100
B. Woodland	<16	16–<22	22–<31	31–<43	43–<100
C. Shrubland	<8	8–<11	11–<17	17–<25	25–<100
D. Scrub	<12	12–<17	17–<24	24–<35	35–<100
E. Mallee/Mulga	<7	7–<10	10–<15	15–<23	23–<100
F. Rainforest	<11	11–<15	15–<22	22–<31	31–<100
G. Grassland	<8	8–<10	10–<16	16–<23	23–<50
	Downslope >10 to 15 degrees				
A. Forest	<33	33–<42	42–<56	56–<73	73–<100
B. Woodland	<21	21–<28	28–<39	39–<53	53–<100
C. Shrubland	<9	9–<13	13–<19	19–<28	28–<100
D. Scrub	<14	14–<19	19–<28	28–<39	39–<100
E. Mallee/Mulga	<8	8–<11	11–<18	18–<26	26–<100
F. Rainforest	<14	14–<19	19–<28	28–<39	39–<100
G. Grassland	<9	9–<12	12–<18	18–<26	26–<50
	Downslope >15 to 20 degrees				
A. Forest	<42	42–<52	52–<68	68–<87	87–<100
B. Woodland	<27	27–<35	35–<48	48–<64	64–<100
C. Shrubland	<10	10–<15	15–<22	22–<31	31–<100
D. Scrub	<15	15–<21	21–<31	31–<43	43–<100
E. Mallee/Mulga	<9	9–<13	13–<20	20–<29	29–<100
F. Rainforest	<18	18–<25	25–<36	36–<48	48–<100
G. Grassland	<10	10–<14	14–<21	21–<30	30–<50

How do we get people out

“Bushfire fatality data from 260 fire events from 1901 to 2011 analysed by CSIRO, shows that whilst late evacuation represents the primary activity taken at the time of death, there is a rising trend of fatalities occurring within structures (sheltering in place)”

Need to:

- Examine evacuation travel times and routes.
Bring together studies already done and build on what we don't know.
- If route justified do we have community refuge?
- Is our community prepared?
- Summer visitors prepared? Absentee land owners?



Peaceful Bay Precinct



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Overview Map Scale 1:100,000

Legend

- Subject Site
- Cadastre



Scale
1:5,000 @ A3
GDA MGA 94 Zone 50

Data Sources

Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRS Road Network, Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

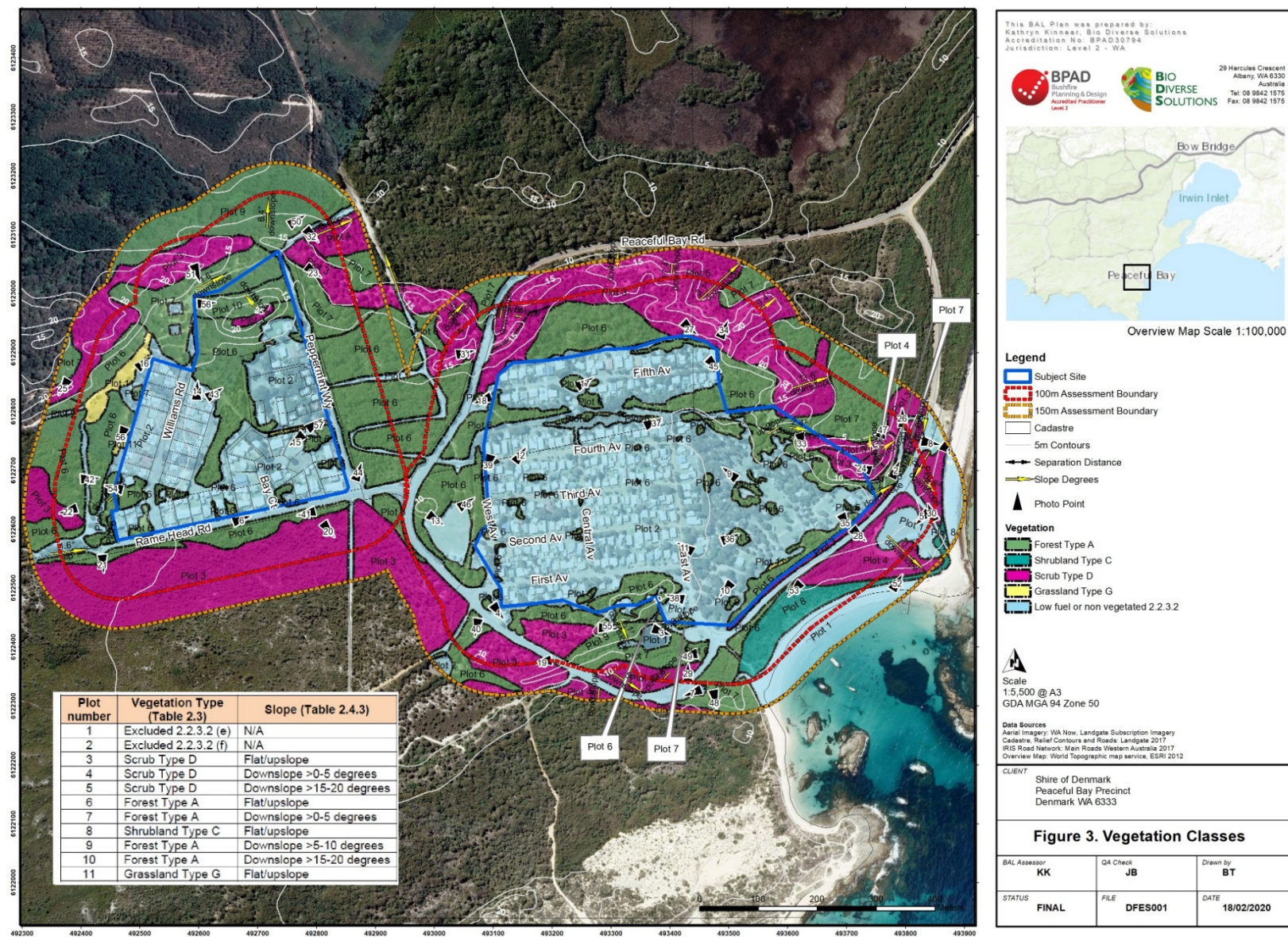
CLIENT

Shire of Denmark
Peaceful Bay Precinct
Denmark WA 6333

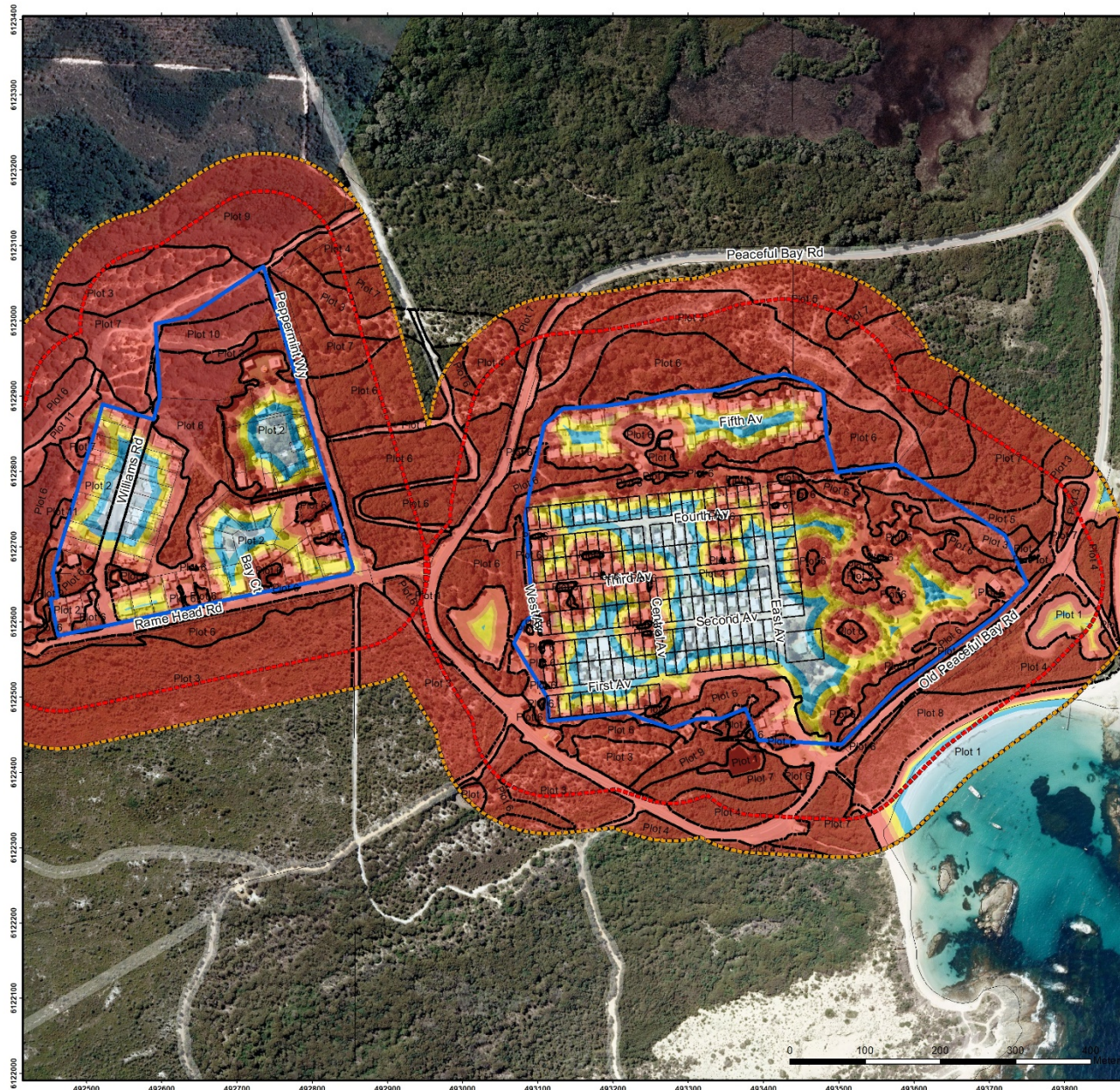
Figure 1. Location Plan

BAL Assessor KK	QA Check JB	Drawn by BT
STATUS FINAL	FILE DFES001	DATE 18/02/2020

Vegetation Mapping Peaceful Bay Precinct to AS3959



BAL Contour Plan – Peaceful Bay Precinct



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Overview Map Scale 1:100,000

Legend

- Subject Site
- 100m Assessment Boundary
- 150m Assessment Boundary
- Cadastre

BAL Contours

- BAL-FZ
- BAL-40
- BAL-29
- BAL-19
- BAL-12.5
- BAL-LOW



Scale
1:5,000 @ A3
GDA MGA 94 Zone 50

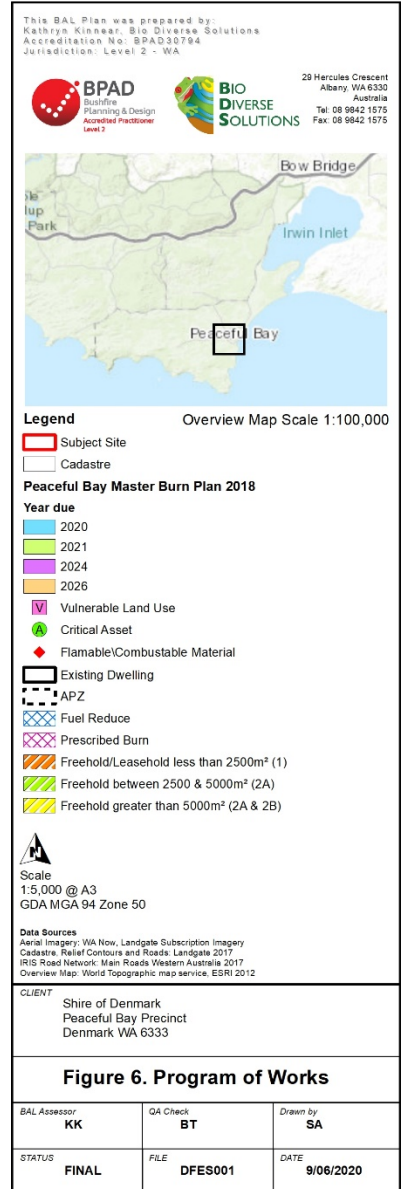
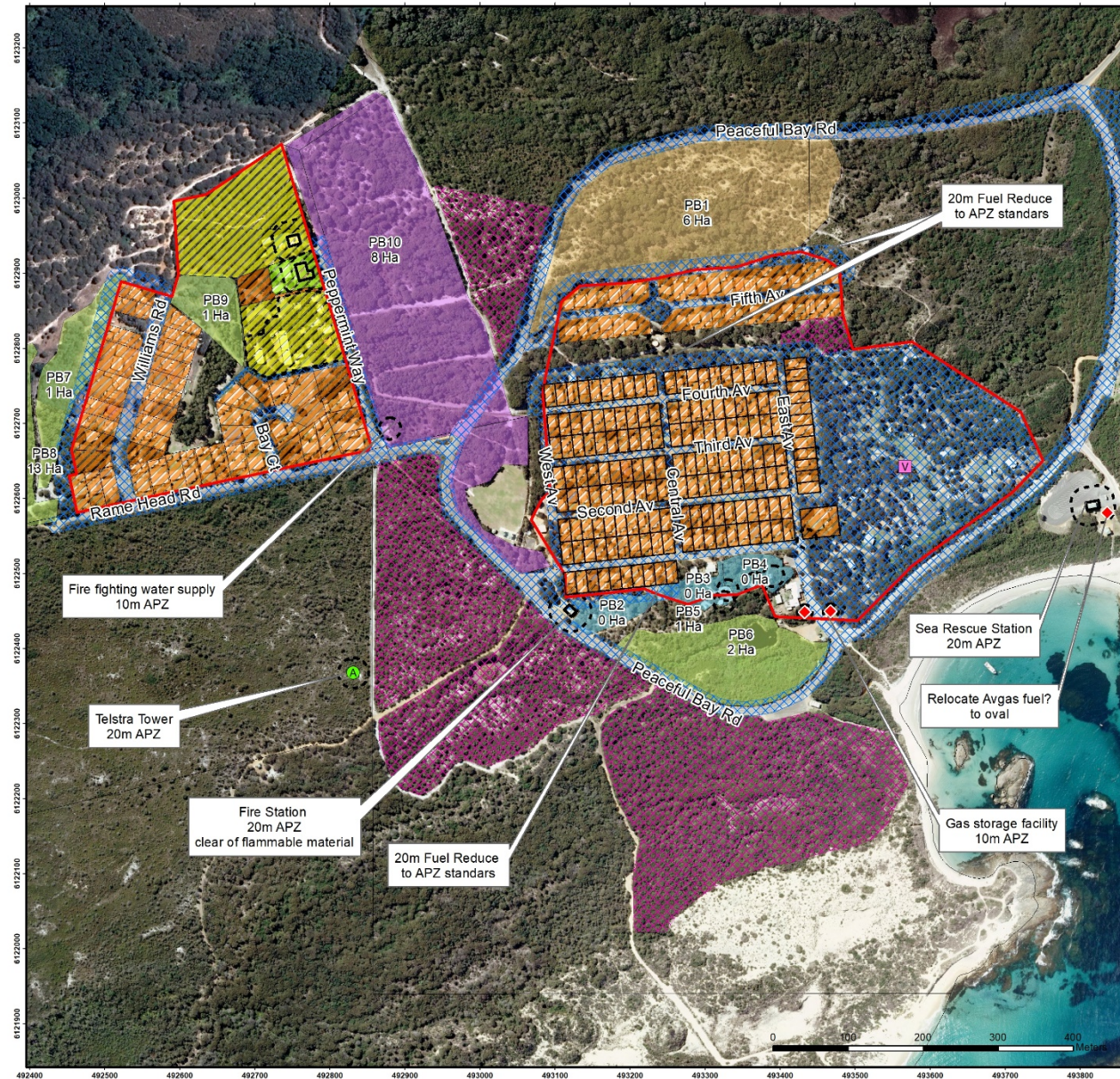
Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

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Peaceful Bay Precinct
Denmark WA 6333

Figure 4. BAL Contour

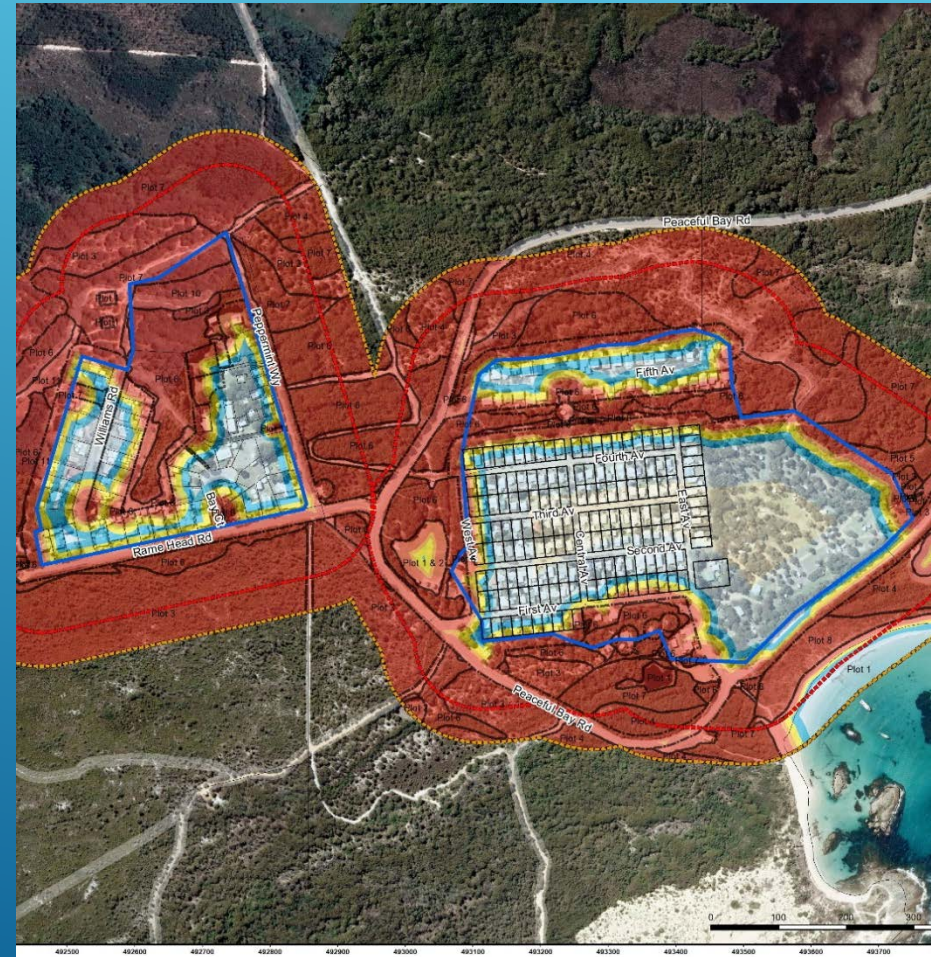
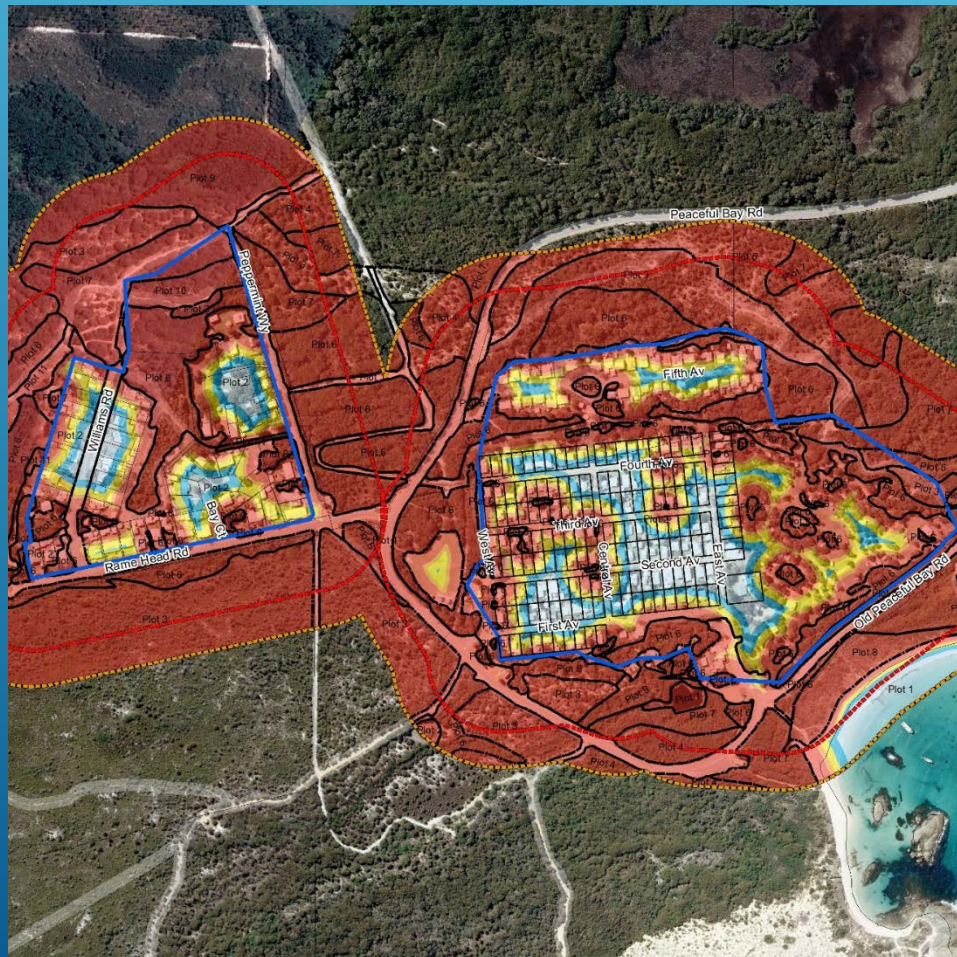
BAL Assessor: KK	QA Check: BT	Drawn by: SA
STATUS FINAL	FILE DFES001	DATE 18/02/2020

Works Program Mapping

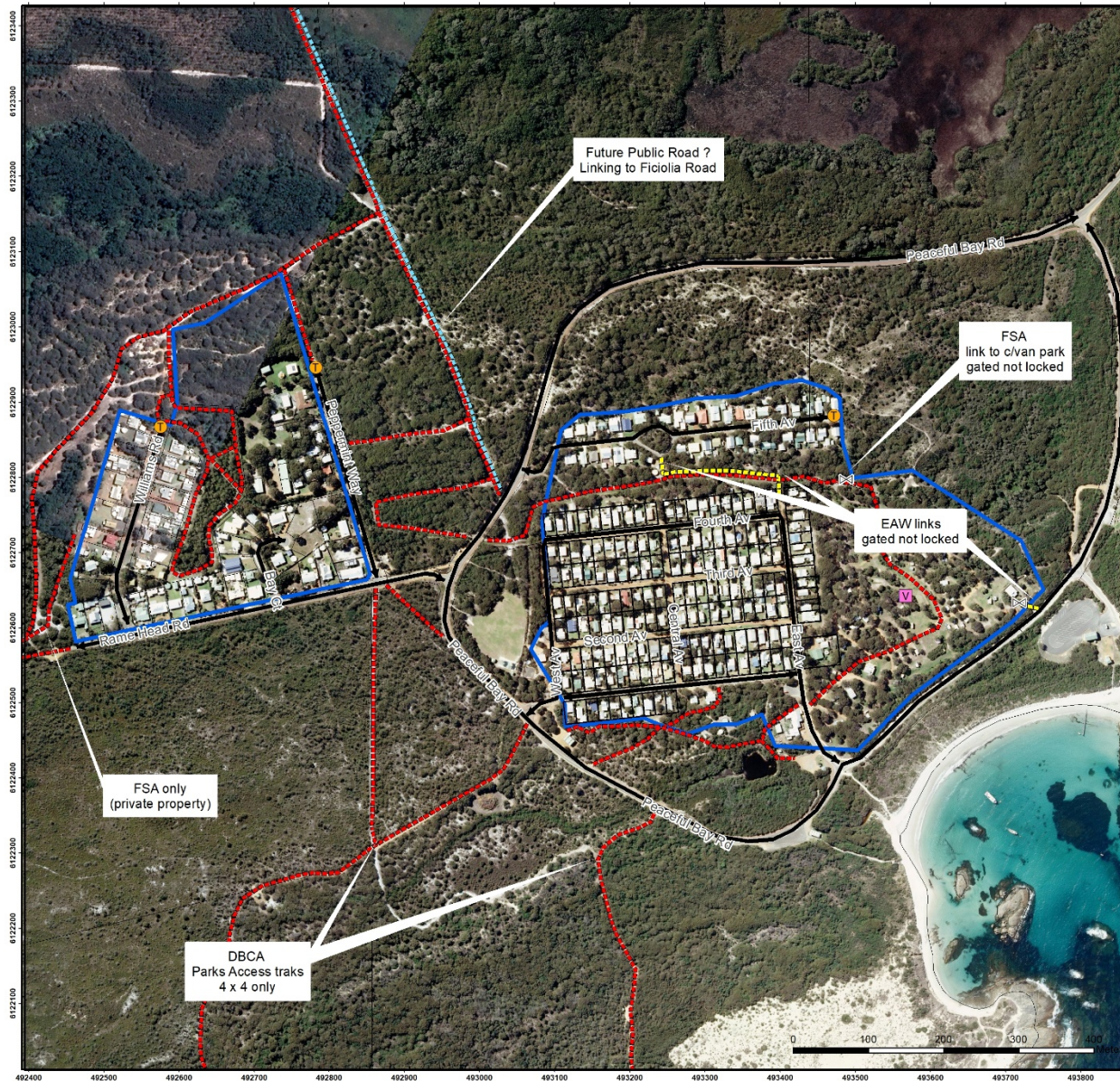


BAL Contour Plan Pre & Post Program of Works

- Applying the SoD Fire Management Notice to the precinct on private property does provide for safer areas in the precinct
- Road reserves contribute to the bushfire risk, however the model is conservative and overestimates the impact. Caution!
- Impacts are seen throughout the precinct, biggest change is in the leasehold area and caravan park.
- Applying the FMN does not get BAL 29 on all lots due to slope, most evident along fifth avenue and freehold areas.



Access



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Overview Map Scale 1:100,000

Legend

- Subject Site
- Cadastre
- Vulnerable Land Use (Caravan park lease)
- Turn Around Area
- Gate
- Emergency Access Routes (EAR)
- Emergency Access Way (EAW)
- Fire Service Access (FSA)
- Proposed Public Road



Scale
1:5,000 @ A3
GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

CLIENT

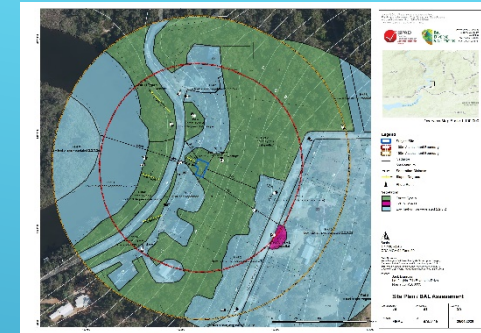
Shire of Denmark
Peaceful Bay Precinct
Denmark WA 6333

Figure 8. Access

BAL Assessor	QA Check	Drawn by
KK	BT	SA
STATUS	FILE	DATE
DRAFT	DFES001	4/05/2020

Program of Works

- Applying the SoD Fire Management Notice to the precinct on private property
- Retrofitting buildings within the precinct to BAL and AS3959.
- Undertake systematic review of the FMN
- Mechanical fuel reduction in road reserves within Old Peaceful Bay Road Reserve and Peaceful Bay Road reserve as priority to low fuel standards to 20m for strategic firefighting capabilities and for safe and timely public evacuation.
- The Emergency Access Routes (EAR) apply and vegetation is fuel reduced in identified in EAR's to cadastral boundaries to low fuel standards for strategic firefighting capabilities and for safe and timely public evacuation. EAR's to apply to Rame Head Road to Williams Road; Bay Court and Peppermint Way; West Avenue, Fourth Avenue; East Avenue and First Avenue.; and Fifth Avenue
- Linking future public roads, assigning Emergency Access Routes, Emergency Access Ways and Fire Service Access Routes for assisting in rapid flow of traffic in a bushfire emergency.
- Regular maintenance regime on all internal precinct public roads.
- A 20m low fuel area/APZ around critical infrastructure – Telstra phone tower to the west of precinct.
- Undertake fuel reduction minimum of 10m around all water structures and flammable/combustible material. Joint agreements may be required with LGA and/or private property.
- A future linking Fire Service Access from Peppermint Way to Peaceful Bay Road.
- Consider public road extension from Peaceful Bay Road to Ficifolia Road in the north (local road).
- Upgrading and/or maintaining access to a minimum of trafficable standards and ensuring turnaround areas are provided.



Project BAL Build



Building a BAL-rated house, like the BAL 12 home, is not as expensive as a fire drought. Credit: Lee Griffin.

How much does it really cost to build homes that will survive bushfire?

A new West Australian study by Kathryn Khosar (Bio Diverse Solutions) and Julie de Jong (H + H Architects), Project BAL Build, has sought to address the misperception and confusion about the cost of building bushfire-resistant houses.



Water.. Do we have it when we need it?

- Water supply reservoir is located south west of the shop/precinct entry off old Peaceful Bay Road. This supply is to the eastern portion of the subject site (leasehold area) for garden use and tanks throughout the precinct for strategic firefighting supply only (no water supply for consumption).
- All water for consumption is via the individual dwelling's rainfall capture and storage. Pumping of water through the reticulated network is via a standalone water pump station diesel pump
- A model for water supply for bushfire preparedness is outlined in the proposed PACE model below:

PACE

Primary: Reticulation from standalone LGA supply – tanks and roadside Hydrants.

Alternative: Additional resources at the brigade shed and Sea Rescue shed 150,000L

Contingency: Pumping direct from Reservoir if tanks used, pipe network damaged and storage not restored. Has this ever been exhausted? Residents rainwater tanks, recommend an isolated supply on larger special residential lots as per FMN.

Emergency: Southern Ocean, Irwin inlet?? Where else would they go for water? Walpole? Sea Rescue Shed





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Overview Map Scale 1:100,000

Legend

- Subject Site
- Cadastre
- Hydrants
- W Water Point (Tank Supply) Existing
- W Water Point (Tank Supply) Proposed
- ▲ Water Pump Station
- Water Pipeline



Scale
1:5,000 @ A3
GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

CLIENT

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Denmark WA 6333

Figure 8. Water Infrastructure

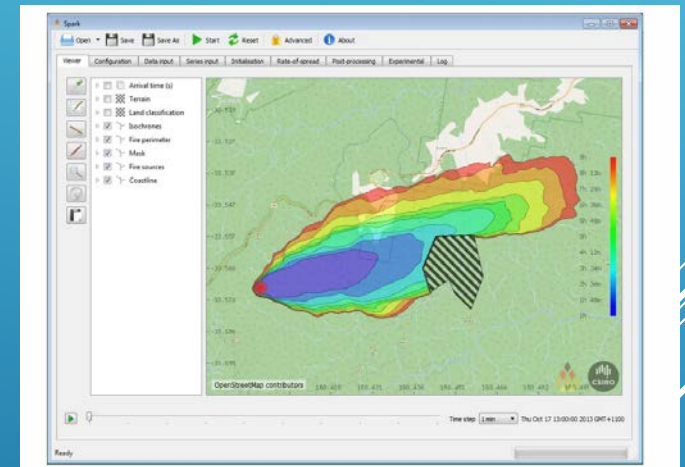
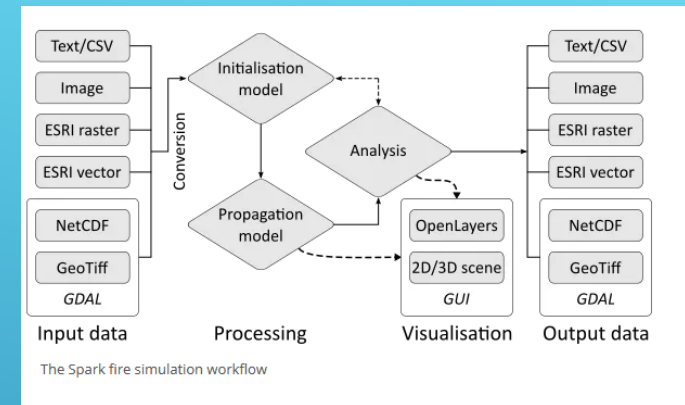
BAL Assessor KK	QA Check BT	Drawn by SA
STATUS FINAL	FILE DFES001	DATE 9/06/2020

CSIRO SPARK Modelling



SPARK is a system developed by CSIRO that enables the simulation of hours of fire spread at a landscape scale.

- System based on a level set propagation model allowing simulation of any number of distinct fire fronts.
- BRIGS used SPARK to assess the likelihood and consequence of bushfire attack on life and property.
- The inputs associated with FFDI 80 for each wind direction (Relative Humidity of 11%, Temperature of 41.8°C, Wind speed of 40.1 km/h and Drought factor of 9).
- 5km Broadscale Vegetation mapping undertaken by BDS.
- Undertaken on each precinct for
 - Landscape risk – how large is the bushfire catchment of the precinct;
 - Locality risk – quantity and degree of the bushfire hazard;
 - Building risk – AS3959 to assess amount of buildings at risk; and
 - Analysis of evacuation and refuge options – safer place options within the precinct based on a radiant heat flux of $\leq 10\text{kW/m}^2$.



CSIRO – SPARK burn perimeter analysis

- The burn-perimeter analysis seeks to assess the degree of potential bushfire exposure of the precinct, from bushfire attack scenarios arising from different wind directions.
- Figures depict the results of the burn perimeter analysis for the precinct. The maximum number of fires potentially impacting buildings within the precinct ranged from 300 to 696 under the three assessed wind directions with fires spreading under a NNW wind resulting in the largest impact to the precinct.
- Whilst bushfire impacts under a NWW wind pose the highest risk to the precinct, the large, vegetated areas located to the west and north of the precinct and to a lesser degree the south west mean that bushfire ignition in other areas, could also pose a high level of risk to the precinct if burning under suitable weather conditions.

Figure 4: Burn perimeter analysis (ESE)

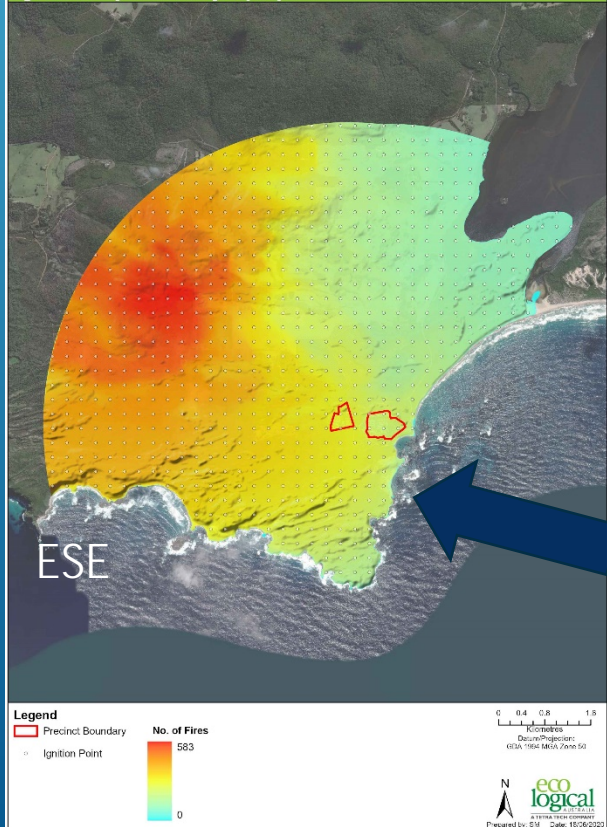


Figure 5: Burn perimeter analysis (SW)

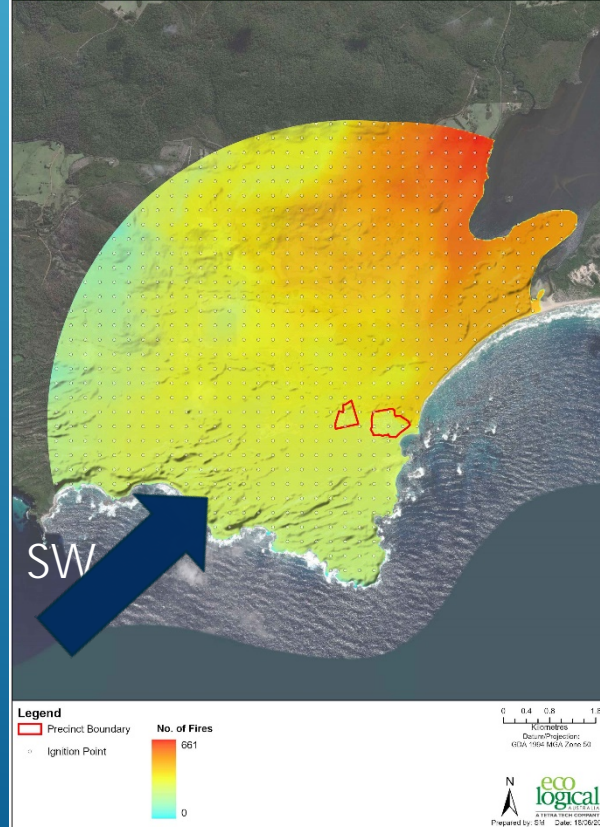
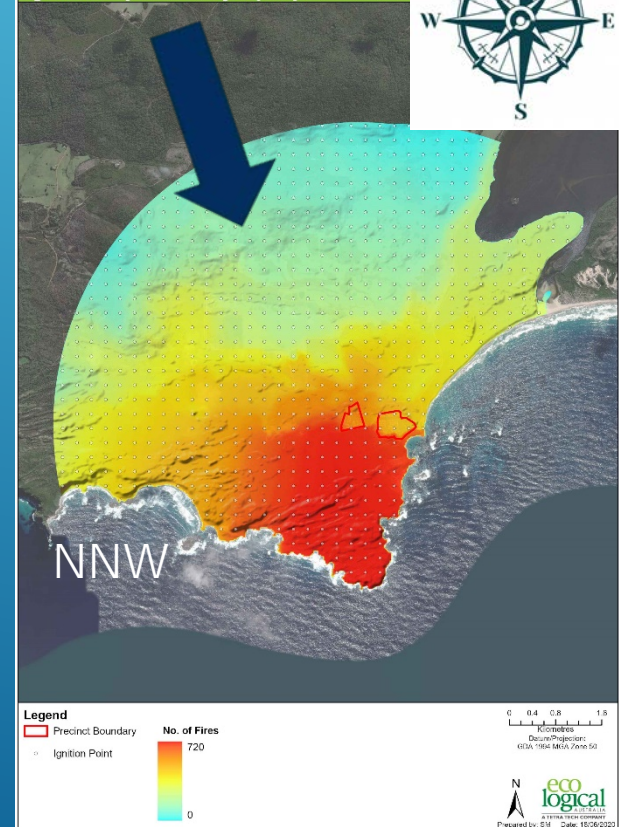


Figure 6: Burn perimeter analysis (NNW)



CSIRO – SPARK bushfire rate of spread analysis

- Assesses the potential bushfire spread and speed from different bushfire attack scenarios.
- The precinct is most at risk from fires starting in the landscape, fanned by winds from the north through to south west sector, due to the fires that could start in this area, the size of the bushfire catchment and the speed at which they could travel towards the precinct;
- Fires starting south west of the precinct and fanned by ESE winds also pose a risk to the precinct, should they be followed by a wind change from the west or south west; and
- The two roads servicing the precinct (Peaceful Bay Road and Ficifolia/Conspicuous Beach Road) are surrounded by vegetation and could be cut off quickly during a bushfire, thereby compromising evacuation.

The results of the landscape risk assessment demonstrate the high level of bushfire risk the precinct is exposed to.

Figure 7: Bushfire rate of spread analysis (ESE)

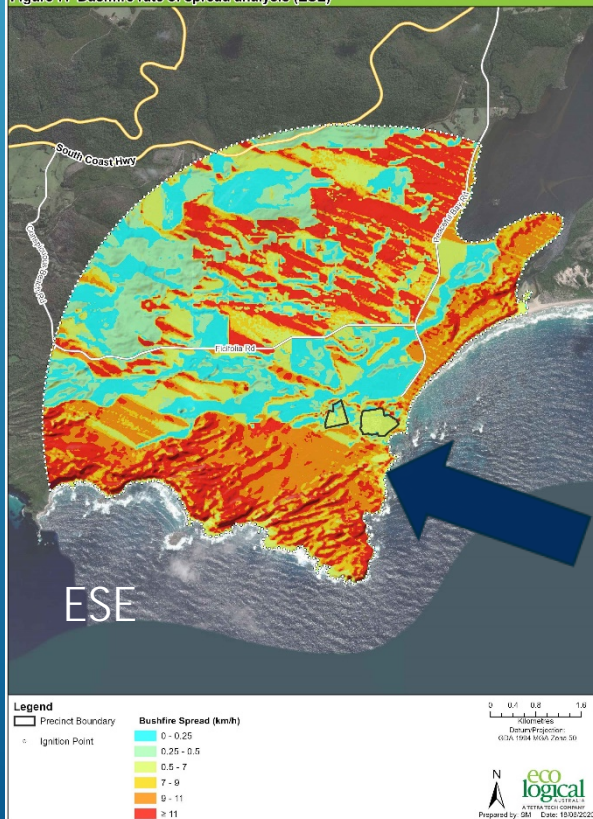


Figure 8: Bushfire rate of spread analysis (SW)

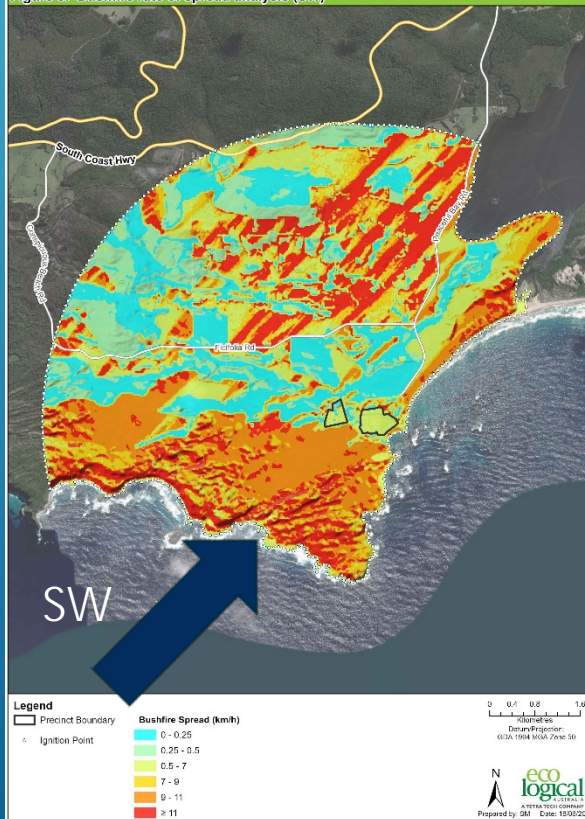
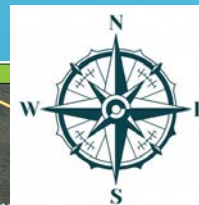
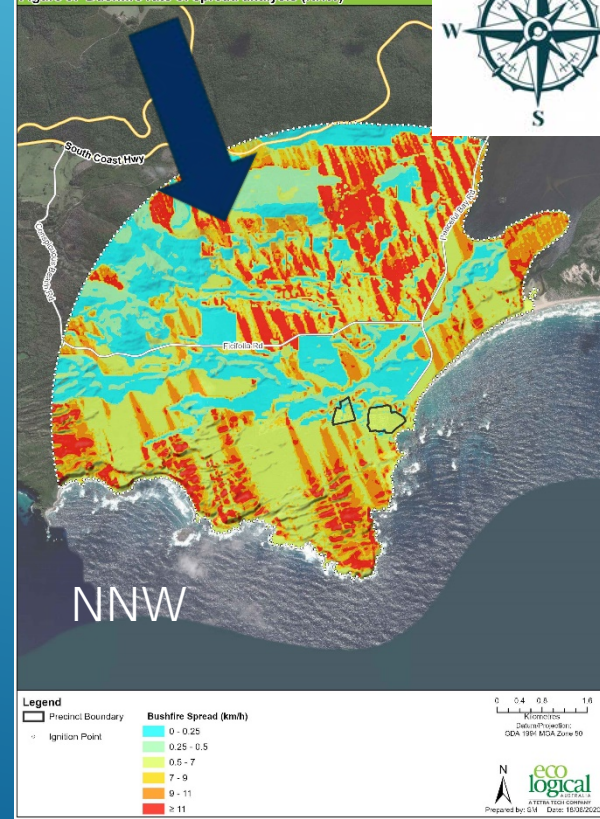
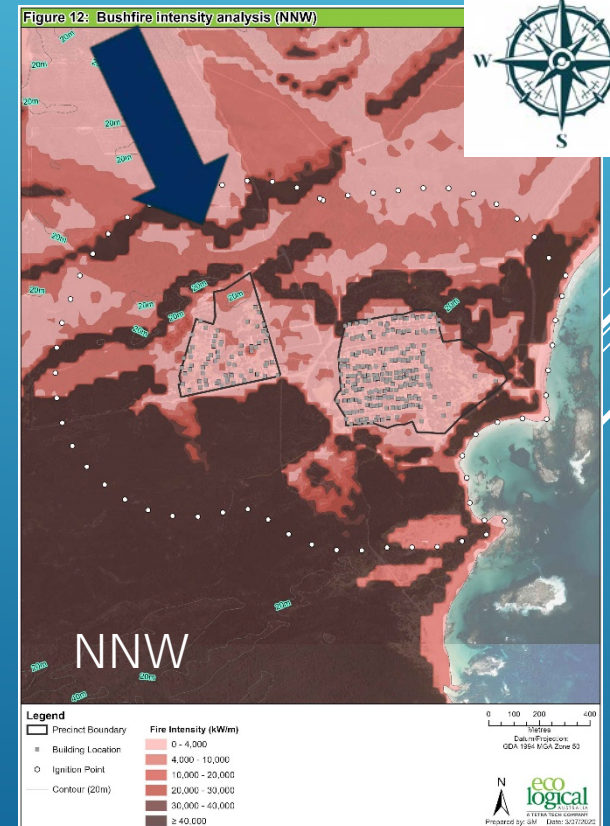
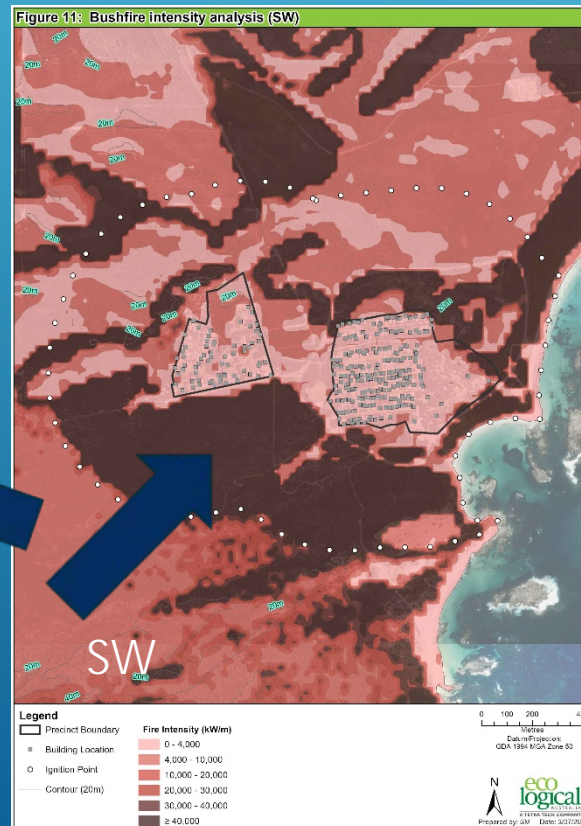
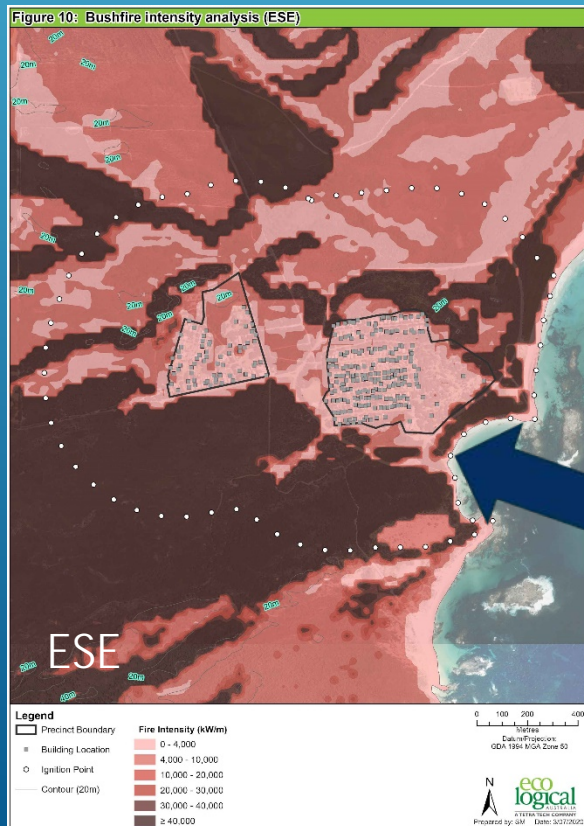


Figure 9: Bushfire rate of spread analysis (NNW)



Locality risk for the Precinct – Bushfire intensity

- To assess the quantity and degree of bushfire hazard in the immediate locality of the buildings associated with the precinct as a measure of the increased potential for more severe bushfire attack.
- Bushfire intensity is a function of the heat yield of fuel, rate of spread and fuel load.
- The results show extremely high bushfire intensity at the precinct interfaces to the south west. These high intensities are related to large areas containing scrub fuels which would facilitate very fast-moving, intense bushfires driven by the direction of prevailing winds. Lower intensities within the precinct are related to semi-managed vegetation, however if management is not undertaken on a regular basis, the actual bushfire intensity within the precinct would be significantly higher than that modelled.
- Intensities to the east of the precinct are likely overstated given the extremely short fire run between coastal waters and the precinct itself.
- In general terms, the results indicate that more intense bushfire is possible in the areas immediately to the north and south west of the precinct, therefore indicating the possibilities of severe bushfire attack at these interfaces of the precinct.

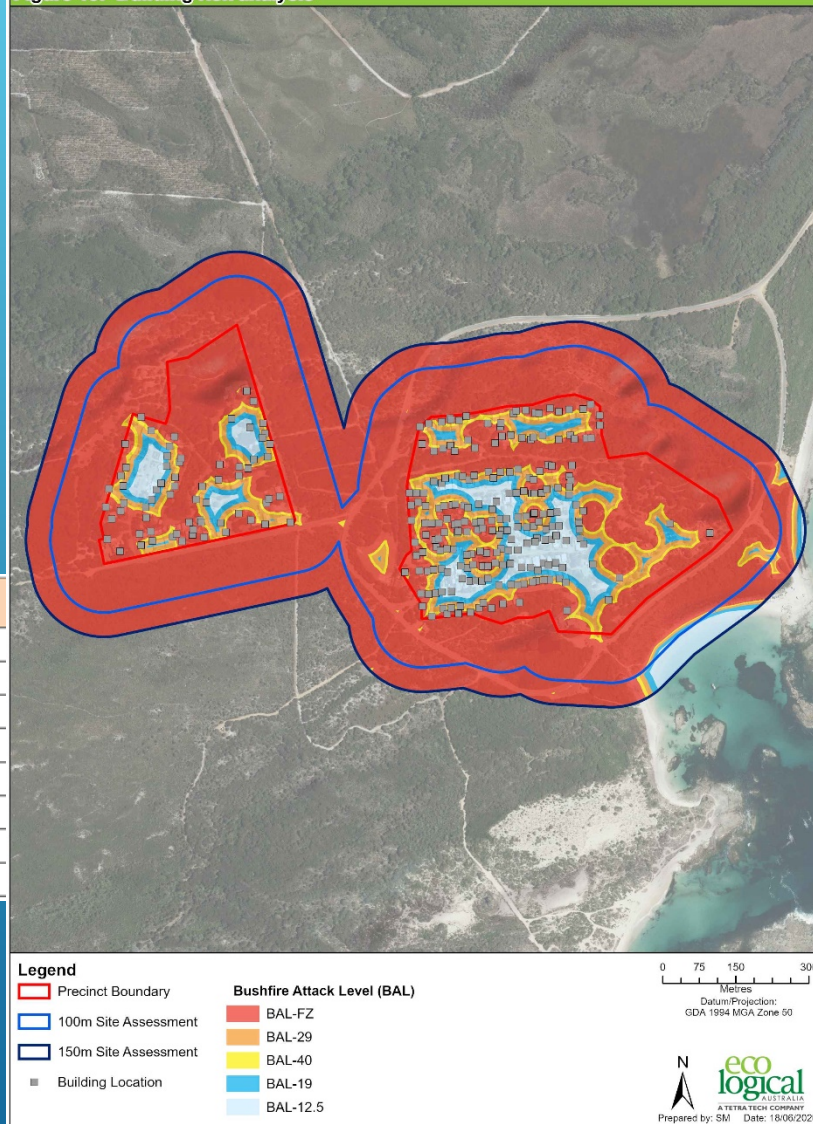


Building risk assessment

- The majority of buildings within the precinct (approx. 51%) occur within areas potentially subject to BAL-FZ (i.e. flame zone) and no buildings were rated as BAL-LOW attributable to the large amount of forest vegetation within and surrounding the precinct
- Regular maintenance of vegetation on private properties as per requirements of all private property owners under the Shire of Denmark 2019/2020 Firebreak and Fuel Management Notice (SoD 2019; and
- Fuel reduction along road reserves would likely result in a major reduction of building risk.

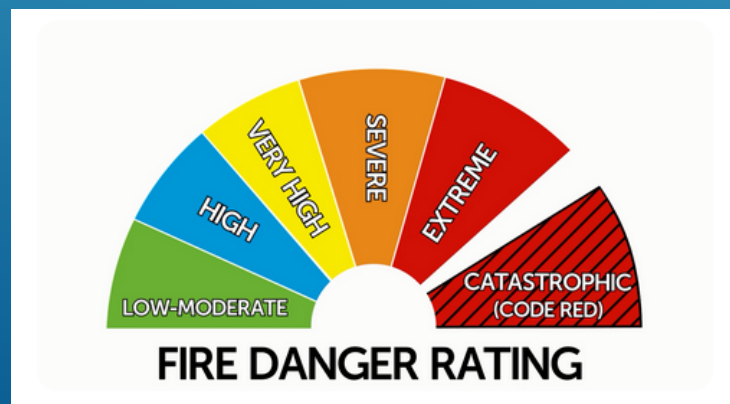
BAL Rating	Number of buildings	% of Buildings
BAL-FZ	145	51%
BAL-40	41	14.5%
BAL-29	41	14.5%
BAL-19	27	10%
BAL-12.5	29	10%
BAL-LOW	0	0
BAL-LOW (100-300 m from hazard)	0	0
Grand Total	283	100%

Figure 13: Building risk analysis



Analysis of evacuation and refuge options

- Early evacuation from the precinct to the Denmark townsite is likely to be the safest option available to residents and visitors.
- The distance from the precinct to Denmark is approximately 50 km travelling east on South Coast Highway, through grasslands and heavily forested areas; off-precinct evacuation should only be undertaken at the direction of emergency services. Alternate evacuation west to Walpole (approx. 33 km) is affected by similar issues.
- Single access route to the off-precinct evacuation location, early evacuation, well in advance of a bushfire is recommended.
- Majority of houses within the precinct are old housing stock, and not built to AS3959-2018 (or previous versions). As such, the safety of an on-site sheltering option is not deemed to be high, in most instances. However, sheltering on-site in a well-prepared and defensible property is preferable to being caught out in the open.



On-precinct evacuation

- The analysis of safer place refuge options did not identify any areas of a suitable size within the precinct that could currently be used as a refuge based on the radiant heat flux thresholds.
- Given the results of the analysis, identification of a suitable area within the precinct that could be developed in the future as a refuge (either a designated building or open space area that can be surrounded by cleared or managed vegetation) is strongly recommended.
- Early evacuation to Denmark, well in advance of a bushfire is strongly recommended.
- Houses not built to AS3959 are not considered a safe sheltering option. Sheltering on-site in a well-prepared and defensible property is preferable to being caught out in the open.
- Homeowners need awareness of the bushfire risk they are exposed to and comply with the Shire of Denmark 2019/2020 Annual Bush Fire Mitigation Notice (SoD 2019).
- Residents should be encouraged to prepare their own bushfire survival plan.

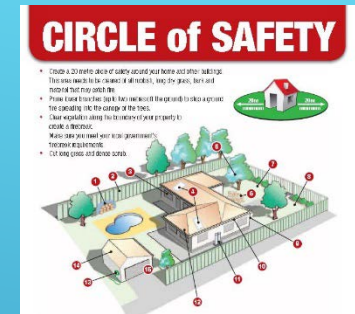
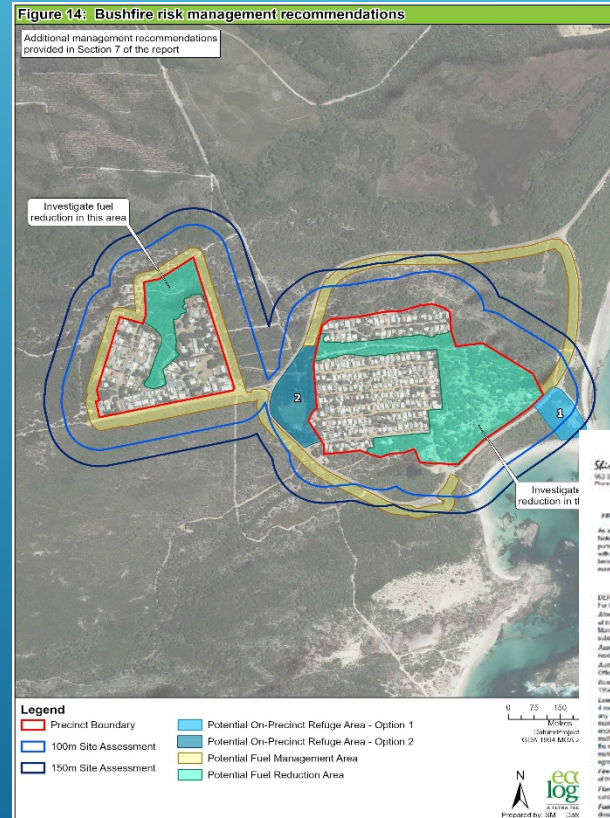


Figure 14: Bushfire risk management recommendations



Cost

- Community cost post fire: Trauma, Re-establishment costs and time to rebuild.

"Canberra suffered not just economic loss but significant social devastation. The first person to suffer from the smoke was a 61-year old man in Duffy. He died of asphyxiation fighting the fire in his backyard. Tragically there were also three more to follow, among them an 83-year-old woman and a 37-year-old woman. Many people were affected by depression, particularly those who had lost their homes in the fires. The community began to question the lack of preparation for the fires and the total confusion at the time."

- LGA recovery cost: rebuilding, cost to government.
- Personal cost: trauma and rebuilding.



The red indicates the families and homes destroyed in Duffy



Stakeholder assistance..

Priority and ranking No	Implementation Action	Agency
1	Assist with funding options to private landowners to retrofitting dwellings to BAL and AS3959.	DFES/SEMC & DoHA (fed)
2	Assist with funding options to private landowners to undertake individual BAL assessments on dwellings to install a compliant APZ associated with BAL-29 or less (where able to achieve) and AS3959 setbacks/APZ area.	DFES & DoHA (Fed)
3	Consider small fuel reduction burns close to the community in DBCA managed reserves to assist with fire fighter protection and suppression activities. Peaceful Bay Master Burn Program shown in conjunction with DBCA burn plans.	DBCA
4	Investigate options for construction of community on precinct refuge area within the precinct and associated vegetation management. Federal assistance may be required.	DFES/SEMC & DoHA (fed)
5	Assist with provision of guiding policy to the LGA on "space open refuge areas" and "community refuge buildings" to assist in development of these areas within the precinct by the LGA/LEMC.	DFES/LEMC
6	Consideration to updating the DFES Homeowner's Bushfire Survival Manual (DFES 2014) or similar public available information to assist with current public available information and dissemination from the LGA.	DFES
7	LEMC to assist with Investigation of options for the construction or designation of an on-precinct community refuge (or safer place) building and associated vegetation management.	LEMC
8	Assist with approvals of bushfire emergency access and egress onto state owned roads for alternative access from cul-de-sac roads/precincts.	MRWA
9	Continue to undertake vegetation management to 20m APZ (low fuel) around all water and critical infrastructure within the precinct as shown on Figure 8. Seek adjacent neighbour compliance to meet 20m protection zone where applicable.	DFES, LGA & Telstra
10	Review Local Planning Strategy to identify key areas of upgrades to critical infrastructure funding especially in regards to water, access (roads) and storage of hazardous substances (fuel etc).	DPLH
11	DPLH assist through provisions of advice to the LGA with planning strategies and schemes to ensure that SPP3.7 is applied consistently throughout the precinct.	DPLH

Building bushfire resilience in communities – National strategy for disaster resilience

- “State governments and municipal councils to adopt increased or improved protective management, emergency management and advisory roles.”
- Strive to recognize and understand the risks disasters pose to their own and their communities interests.
- Leaders drive development of partnerships and networks to build resilience at government, business, neighborhood and community levels.
- We have local, state and federal government listening....
- This is your community/precinct and the bushfire risks affect you....



Where to from here..

- How to establish Asset Protection Zones and biological values – talks with the community.
- Stakeholder working groups – from established BRIGS group.
- Bushfire ready group developed.
- Mitigation Activities funding priorities.
- Fire control notice review.
- Continue engaging with community/precinct.



Photo: R.Hedderwick, 2020



Where to from here..lets talk about it its your community..

- Questions
- Suggestions
- Funding options
- Bushfire ready groups
- Stakeholders not considered?
- Next steps from Shire Of Denmark
- Next fire season 2020/21 preparations
- Feedback on the project

