

# Pre-draft survey for the 2024-2033 Forest Management Plan

Data Analysis Report  
Tuesday, 24 May 2022

VERSION 2

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## 1. Overview

The Department of Biodiversity, Conservation and Attractions (DBCA) engaged Cannings Purple to assist in the development and analysis of a pre-draft survey as part of the Forest Management Plan 2024-2033 (FMP 2024-2033). Cannings Purple role was to define a technology solution to capture responses and analyse these findings. This report outlines the findings from the pre-draft survey to inform the draft management plan.

### Respondents

The online survey was open for response for a three-week timeframe, from Tuesday 12 April 2022 to 11.59pm on Monday, 2 May 2022.

During this time 2,277 unique responses were received from across the State and the country. The survey received 6,909 views, 4,242 unique starts, with a completion rate of 55% for the survey. It was expected that the survey would take approximately 20-minutes to complete, the average completion time was 49 minutes and 32 seconds. The survey was advertised on the DBCA webpage and through print advertorials that displayed a QR code directing users to the online survey. An example of the advertorial is shown in Appendix 1.0.

The distribution of responses spanned across the State and Nation and have been categorised based on the DBCA administrative regions, with the majority of respondents – 63% - located in the Swan region. Respondents based in the South West region accounted for 27% of total responses and 7% of responses were completed within the Warren region. This is consistent with the population density across the State. Note, the South Coast regions are captured under Warren region.

Distribution of these responses are illustrated on the State and national maps in Appendix 2.0 and 3.0.

### Survey model

The survey was created through online software platform TypeForm and included 19 questions which were displayed in a variety of formats. These included:

- Dichotomous (Yes / No)
- Rating scale (Poor, Good, Excellent)
- Multiple Choice
- Net Promoter Score – NPS (0 – 10 scale)
- Demographic

## 2. Results

### Question 1: What do you value about the south-west forests?

Unique responses: 2,277 (100%)

Overwhelmingly, respondents of all ages value the forests' contribution towards ecosystems and providing habitat to flora and fauna, with over 80% of respondents from all age group valuing "*Biodiversity and natural ecosystems*" and "*A natural habitat for plants and animals*". 91% of female respondents value the forest as "*A natural habitat for plants and animals*", in comparison to 79% of male respondents. Overall, male respondents valued "*Biodiversity and natural ecosystems*" the highest when considering the south-west forests (82%). More female respondents (77%) value '*recreation*' in the south-west forests than when compared to males (67%). More male respondents (22%) value '*forest industries*' in the south-west forests than when compared to females (11%).

Older respondents valued the south-west forests role in providing carbon storage more than when compared with respondents aged 54 and under. 72% of respondents over the age of 75 and 65% of respondents aged between 55 and 74 rated '*carbon storage*' as a value derived from the south-west forests. Relatively higher when compared to younger age groups with 53% of respondents under 35 and one in two respondents aged 35 to 54 valuing the forests' role in storing carbon.

Almost half of respondents aged 54 and under value the south-west forest and its importance to their mental or physical health, in comparison to 39% of respondents aged between 55 and 74 and 33% of respondents aged 75 and older. A similar trend is evident for respondents who value the forests contribution towards '*recreation*', *with the younger age groups valuing this option when compared to older respondents. For respondents aged 54 and under*, 70% of this group identified the value of the forests in comparison to 53% of respondents aged 55 and above. Raw data of these responses are visualised in Appendix 4.0.

The lowest valued uses of the south-west forests were *customary activities* (2.4%), *access to facilities* (5.7%), and *education* (15.3%). This sentiment is reflected fairly evenly across the three regions, with 2% of Swan regions (33) and South West regions (11) and 3% of Warren region (4) indicating their value of *customary activities*; 6% of Swan region (87) and South West region (35) and 3% Warren region (5) indicating their value of *access to facilities*; and 15% of Swan region (220) and Warren region (24) and 14% of South West region (85) indicating their value of *education*.

Notable difference in responses was identified when comparing the responses of male and female respondents. Female respondents valued education more than male respondents, 18% (227) compared to 12% (120) of males. Male respondents valued *access to facilities* more than female respondents, 8% (73) compared to 4% (57) of females. The value of *customary activities* was fairly similar, with 3% (32) of male respondents and 2% (23) of female respondents.

### **Question 2: Do you use the south-west forests?**

Unique responses: 2,277 (100%)

Of the 73 respondents who do not use the south-west forests, 67% are 55 years or older. 30% of this group rated the health of the forests less than good in Question 5. The majority of these responses provided commentary referencing logging, mining and clearing activities within the south-west forests.

### **Question 3: How do you use the south-west forests?**

Unique responses: 2,202 (97%)

Four in five respondents use the forests for exercise or recreation, naturally the younger respondents use the forests for recreation and exercise more than the respondents aged 75 and over. Of the 295 respondents aged under 35, 247 (84%) use the forests for recreation and 251 (85%) use the forests for exercise. In contrast, 59% of respondents aged 75 and over use the forests for recreation and 60% of this group for exercise. Women are less likely to use the forest for employment than men, with 7% of female respondents using south-west forests for work in comparison to 16% of male respondents.

### **Question 4: How often do you visit south-west forests?**

Unique responses: 2,197 (96%)

Respondents based in the South West region visit the forests more regularly when compared to Swan region based respondents. Out of the 604 South West region respondents, 516 (85%) and 80% of the Warren region based respondents visit the forests on a daily, weekly or monthly basis. In contrast, 45% of respondents based in the Swan region visit the forests on a regular basis of daily, weekly or monthly and an additional 42% of Swan region respondents visit the forests several times a year.

## Question 5: How could your use of the south-west forests be improved?

Unique responses: 1,912 (87%)

*Note: Open response question*

Environmental impacts are the primary concern for respondents. Overall, respondents use of the forest could be improved with better management of feral animals and better protection of nesting hollows and under-storey including from mining and fire.

Forest user experience could be improved by better facilities and accessibility, including access to wilderness hiking and camping areas as well as trails including mountain bike and walking trails.

A statistical method was used to analyse and tag the raw data, using this approach the most frequent tags were:

- |                 |               |                  |
|-----------------|---------------|------------------|
| 1. Recreation   | 4. Logging    | 7. Trails        |
| 2. Conservation | 5. Management | 8. Weeds         |
| 3. Burning      | 6. Mining     | 9. Feral animals |

## How could your use of the south-west forests be improved?



Figure 1.0 – A statistical method was used to analyse and tag the raw data, using this approach the five most frequent tags are illustrated.

## Examples of these tags:

### Recreation

*'More area for recreational activities and more designated firewood collection areas.'*

(M, Swan Region)

*'Better knowledge of walks, better signage and facilities and passive recreation activities within forests'* (F, Swan Region)

*'Allow for recreational activities such as trailbike areas more camping areas 4x4 areas.'*  
(M, Swan Region)

### Conservation

*'By adopting forest management planning and practices that are far less utilitarian and focused instead on protecting the conservation and intrinsic values of the forest.'*  
(F, Warren Region)

*'More animal and plant conservation efforts and community awareness. For example, kids campouts on country. Tree planting and volunteer programs for rehabilitation.'*  
(M, South West Region)

*'Access to and participation in forest care practices such as cool mosaic micro burns for habitat protection, weed control, invasive bee extraction and supporting forest conservation with citizen science projects (i.e. Wildlife camera use, track scat and habitat monitoring).'*  
(F, Warren Region)

### Burning

*'Less burning so more biodiversity and animals to see. Plus, more compostable toilets and picnic table areas.'* (F, South West Region)

*'By encouraging and promoting the involvement of the noongar people in forest management including the use of cultural burns to keep the forest healthy and limit wildfires. To ban large scale aerial incendiary bombing in any form. For the fire management to adhere to the safeguards already in place that protect peat bogs and vulnerable and protected plant and animal species.'* (F, Warren Region)

*'An improvement in the health of forest ecosystems, at present it is very hard to see how degraded the majority of forest ecosystems are through climate change, extensive logging, spread of dieback, over-burning.'* (F, Swan Region)

### Logging

*'Stop logging. Keep fire breaks refreshed.'* (F, South West Region)

*'By preserving the forest from logging so that hiking and camping can be in a natural environment and biodiversity and animal habitats/corridors supported.'* (M, Swan Region)

*'Stopping logging, adopt first nations forest management principles.'* (M, Swan Region)

### Management

*'Maintenance of fire equipment tracks. Better management of fire reduction burns, if any.'*  
(M, Warren Region)

*'I am member Birdlife Australia - watch and survey all bush birds, especially 3 x threatened black cockatoo species. Need improved forest management: ensure mature and dead trees for cockatoo foraging/food, roosting and hollows for nesting. Native animal and bird habitat destroyed by thinning and logging eg, numbats, woylies, chuditch, quokkas need naturally fallen tree logs on ground for survive. Current burning practices incinerates animals and forest habitat. Regrowth out of balance.'* (F, South West Region)

### Mining

*'Halting the mining and exploration in the darling particularly, so that more access is available.'* (F, Swan Region)

*'Stop the spread of mining. Mining completely destroys areas that hikers, trail runners and animal lovers use. More forest needs to be protected forever, not just for ecological reasons but also for people to enjoy sustainably.'* (M, Swan Region)

### Trails

*'I use the forest for recreational horse riding. I would like more trails be developed for equine use and more areas of forest available for use.'* (F, South West Region)

*'Recognition for Trailbikes as a legitimate Forest User, also Manjimup Trailbike Hub.'*  
(M, Swan Region)

*'I would like to see more improvement in walking trails. When I am walking I would like to enjoy healthy well looked after Forests.'* (F, Swan Region)

### Weeds

*'More ecologically sustainable fire polices. All to often there is prescribed burning that creates a smoke nuisance or hazard or unsightly burnt vegetation. This decreases the experience of bush walking etc as it's a health hazard, unsightly and incompatible with*



*relaxation. More weed control needed as wild flowers are decreasing rapidly due to weed competition. Also ban illegal mountain bike and dirt bike use- too many un-sanctioned trails. Bauxite mining is also spoiling the views.'* (F, Swan Region)

*'I would like to see more care & preservation of our native forests. For example I see lots of invasive weeds & introduced plants along walk trails. I'd also like to know that feral/introduced animals are being controlled throughout national parks & state forests so that our native birds & animals are protected from things such as foxes & cats. I'm also very concerned about the threat to our native forests from wildfires. I believe we must improve our control burning techniques.'* (F, South West Region)

#### Feral animals

*'As we utilise the forests for recreation and bird / wildlife watching we would like to see greater protections afforded to the forests. This could be through changing burning regimes and minimal removal of habitat trees with hollows. It could also be better feral animal control to provide safe environment for native animals.'* (F, Swan Region)

*'Eradication of feral animals. Protection of nesting hollows and understorey habitat from mining and prescribed burning practices. Increased funding for more Rangers to monitor and curb the destruction caused by irresponsible 4x4 drivers, people who trample their own track through trees. Heavier fines for littering, illegal camping and dogs.'* (F, South West Region)

*'Feral animals seem to be a continual issue - this needs to be addressed and would like more input from First Nation people.'* (F, Swan Region)

#### **Question 6: How do you rate your experience with the south-west forests?**

Unique responses: 2,204 (97%)

Overall, the respondents rate their experience with the south-west forests 3.9 out of 5, or Good to Excellent on the rating scale.

The more infrequent users of the forest - respondents based in the Swan region - rate their experience with the south-west forests the highest, with 69% of respondents rating the experience 4 or 5 out of 5. A rating of 4 or above was given by 65% of respondents based in the Warren region and 61% of respondents based in the South West region.

Of the 140 respondents who rate their experience of the south-west forests as less than good (1 or 2 out of 5), 122 or 87% are aged 45 or older. More than half of these respondents (55%), visit the south-west forests on a daily or weekly basis.

### **Question 7: How could your experience of the south-west forests be improved?**

Unique responses: 1,804 (79%)

*Note: Open response question*

#### Conservation

A strong theme of better environmental management was reflected in the individual responses analysed. Many respondents indicated that their experience of the south-west forests could be improved by the elimination of forest mining, reduction of the frequency and intensity of forest burning and greater conservation of the existing forest area.

Some respondents indicated that better management of pests and feral animals within the forest would also improve their experience.

#### Recreational activities

Overall, respondents indicated that better control of activities in unapproved areas, such as dirt biking, Four Wheel Driving and Mountain Biking would likely improve their experience of the south-west forests. Some respondents identified biking as their preferred recreational activity in the south-west forests and have identified that more designated biking areas would likely improve their experience of the forest.

#### Culture and care for country

Many respondents indicated that the introduction of eco-tourism would improve their experience of the forest and provide an opportunity to educate other forest visitors about how to care for country. Some respondents indicated that the employment of Aboriginal rangers and eco-tourism guides would enhance their experience and their traditional knowledge of forest management should be considered integral to the development and implementation of any conservation plans.

#### Amenities and facilities

The majority of respondents use the forests for recreation, exercise and tourism and a common trend of improved amenities and facilities has been identified in the overall responses. Respondents commented that more bins, better access roads and the increased use of signage and maps would improve their experience. Dedicated areas for camping,

including additional campsites, fire pits and amenities would be beneficial.

### **Question 8: What does a healthy forest look like to you?**

Unique responses: 2,146 (94%)

*Note: Open response question*

Overall, respondents agreed that the forest should be managed with minimal human involvement, including restrictions on mining, clearing and burning. It was indicated that some level of management was required to maintain a healthy forest such as the process of mulching and clearing undergrowth and managing pollutants, weeding, pests and feral animals.

Visually, a healthy forest ecosystem includes plants and animals with interdependencies and relationships. Respondents indicated that a healthy forest has a high canopy and tall mature trees, such as Karri, Jarrah and Marri trees with relatively clear undergrowth.

A statistical method was used to analyse and tag the raw data, using this approach the most frequent tags were, biodiversity, human interference/involvement, native flora and fauna and old growth forests.

#### **What does a healthy forest look like for you?**



Figure 2.0 – A statistical method was used to analyse and tag the raw data, using this approach the four most frequent tags are illustrated.

#### **Examples of these tags:**

##### Biodiversity

*‘A healthy forest is self-sufficient, biodiversity rich and free of external stresses. It is returning*

*to a state in which it existed. Large areas left unburnt to provide safe habitat for native species. The active management of the land by people, removing invasive species, monitoring air, soil and water quality, re-introducing rare or endangered species. Free from dieback and other diseases. Free from excessive human development (e.g. roads, bike paths, camp sites etc).'* (F, Swan Region)

*'Complexity and biodiversity from healthy soil containing complex fungal networks, to ground covers, understory, mid-story and top story trees.'* (M, South West Region)

*'A healthy forest has moist healthy living soil; a diverse collection of trees of all ages; trees that are untouched by humans; maximum biodiversity evident in ecosystem; evidence of resident native species; no evidence of dieback disease.'* (F, Swan Region)

#### Human interference

*'Untouched, un-trodden-upon, un-messed-with, left to Nature's own devices without human interference. A mixture of large, old trees and young saplings, some fallen trees left to rot, a diverse under-story and lots of bird and animal life.'* (M, South West Region)

*'A healthy forest is one that has had minimal human interference and resource extraction activities, one that has a range of vegetation ages and sizes. A forest that has no environmental and declared weedy plants, or if it does have them, to see that they are actively being managed/controlled. A forest that has had a well managed prescribed burning regime.'* (F, South West Region)

*'Healthy vegetation, that has natural ecosystems supporting wildlife. A noticeable lack of human interference.'* (F, South West Region)

#### Native flora and fauna

*'Healthy ecology which includes advice from elders on appropriate care/stewardship of the land. If burning of fuel is required, it should minimise permanent harm to native flora and fauna.'* (M, Swan Region)

*'One that has an undamaged native ecosystem, that has huge mature native trees providing a complete forest canopy plus hollows for native birds and wildlife. A very diverse native understory with a thick, damp forest floor. Cool and shady with the ecosystem supporting a healthy biodiversity of Native flora and fauna, birds, insects etc.'* (F, South West Region)

*'A place of diverse and visible native flora and fauna (incl birds) with rich growth of all native species and minimal introduced species of flora.'* (M, South West Region)

#### Old growth forests

*'Old growth forests (i.e. not logged at all or logged in past 100 years). Robust ecosystems not decimated by prescribed burns. Cultural burning practices are used. Rehabilitation that uses plants indigenous to the area. Removal of introduced weeds.'* (F, South West Region)

*'Trees of different ages and species, with the majority old growth and not disfigured by frequent prescribed burning; some trees with hollows for nesting; healthy and diverse understory, including habitats for insects, fungi, micro-organisms on the forest floor; evidence of native wildlife activity; minimal weeds and exotic species.'* (F, Swan Region)

*'Full of old growth trees. Allowing trees to create their own understorey rather than interfering with large burn areas. Full of native animals and birdlife. No hunting for sport, including for wild pigs.'* (F, Swan Region)

#### **Question 9: How healthy do you think the south-west forests are?**

Unique responses: 2,277 (100%)

The average respondent rating for this question was 2.8 out of 5, or less than good. On average 45% of respondents from the South West and Warren regions rated the health of the south-west forests less than good (1 or 2 out of 5). In comparison, Swan region based respondents rated the health of the south-west forests higher, with only 33% of Swan region based respondents rating it less than good.

Overall, younger respondents rated the health of the south-west forests higher when compared to older respondents. 37% of respondents aged under 35 rated the health of the forest 4 or 5 out of 5, in comparison to 22% of respondents aged 35 to 64 and only 11% of respondents aged 65 and over.

## How healthy do you think the forests are and what is your reason for this choice?



Figure 3.0 – A statistical method was used to analyse and tag the raw data, using this approach the five most frequent tags are illustrated.

### Question 10: What is the reason for this choice?

Unique responses: 2,068 (91%)

As evident in responses to questions 5 and 7, many respondents attributed their low rating of the forests health to logging, mining and clearing of habitat and disrupting the ecosystem. Respondents also referenced the management of weeds and feral species, including feral cats and foxes killing native birds and reptiles.

A significant number of responses referenced minimal human interference with the forests, referencing the forests historical lifespan of successful growth without ecosystem management. Some respondents noted the value of forest management including controlled burning, maintenance of access roads, amenities and facilities and designated areas for recreational activities, including biking, walking and camping.

### Question 11: What on-ground forest management activities do you think are the most important to maintain or improve forest health in a drying and warming climate?

Unique responses: 2,277 (100%)

Respondents were asked to rank their answers from most important (1) to least important (10).

The majority of respondents (53.7%) identified '*managing pests and feral animals*' in their top three ranking. Almost half of respondents identified '*protecting threatened species and communities*' (49.5%) and '*managing disease*' (49.1%) in their top three ranking as the most

important management activities to maintain or improve forest health. Nearly a third of respondents (31%) identified '*Traditional Owner involvement*' in their top three ranking.

Overall, 77% of respondents identified '*ecological thinning*' in their bottom three ranking for most important management activities. This least important forest management activity was followed by 'maintaining roads and pathways' (57%) and '*hazard reduction / prescribed burning*' (42%).

#### **Question 12: What is the reason for your choices?**

Unique responses: 1,744 (77%)

**What on ground forest management activities do you think are the most important and what is the reason for your choice?**



Figure 4.0 – A statistical method was used to analyse and tag the raw data, using this approach the four most frequent tags are illustrated.

#### Minimal human intervention

A strong overall theme for the survey is the desire to eliminate unnecessary human intervention directly impacting the forest. When required, human intervention including forest management activities should contribute to the stability of the ecosystem, including the protection of habitat for native species.

#### Traditional owners

Respondents agree that forest management activities should be guided by traditional owners, with consideration of their cultural wisdom and connection to the south-west forest.

**Question 13: Are there other on-ground forest management activities not listed above that are important to you?**

Unique responses: 1,532 (67%)

Education – habitat, fauna and flora

Respondents indicated that education including research and immersive culture programs have a role in the on-ground management of the south-west forests. It was recognised that there is opportunity for eco-tourism to educate forest visitors about biodiversity within the forest ecosystem and protection for the existing diverse flora and fauna.

Amenities – restrict off road vehicles

Respondents recognised the importance of dedicated areas for recreational activities, including footpaths and roads to avoid disturbance of forest area and preservation of native species.

Employment and staffing

Responses indicated the importance of traditional owner led conservation, including Aboriginal caretaker and ranger programs. Respondents also recognised a need for staffing to discourage misuse of the forest, including recreational activities in protected areas.

Fauna and flora protection

Generally respondents recognised the importance of a healthy ecosystem, with a minority of respondents commenting on the forests role in protecting species, including bee keeping activities.

A statistical method was used to analyse and tag the raw data, using this approach the most frequent tags were, education, restrict off road vehicles, management of litter and rubbish dumping and restricted public access areas.

Education

*‘More ranger presence in our national parks, more education, more information that is easy for all to access on how to enjoy our forests without causing it any harm.’*

(F, South West Region)

*‘Involvement of children and young people in planting, weeding, nest box schemes and education so that we set up the next generation to understand and enjoy the significance*



*and management of the forests.'* (F, Swan Region)

*'Yes, the lack of appropriate education of the graduates of Universities across Australia who are considered experts on the management and preservation of Native Forests and their required extended eco-systems to preserve their estate! This includes those who manage what little remains across WA in all fields of land development. Forests cannot stand without legal regulation to protect them from destructive Land Use Planning Practices of what remains in Crown Reserves and on Private Property.'* (F, Swan Region)

#### Restrict off road vehicles

*'A ranger program of forest stewards to keep an eye out for fires, dumping of rubbish, hunting, off road vehicles, and other illegal activities.'* (F, Warren Region)

*'Better distribution of user activities, and recreational activities eg, bikes, motor bikes, hiking etc could easily be kept well separated and positioned for lowest impact on soil and water condition. Firewood collection areas need to be changed more often and increased in area/number instead of consistently hammering the same areas year after year.'*  
(M, South West Region)

*'Keeping vehicles like dirt bikes and 4x4s out of disease risk areas is also important through the use of gates, cameras and fine enforcement.'* (M, Swan Region)

#### Management of litter and rubbish dumping

*'The management of rubbish and litter. There's a lot of illegal dumping in the Perth hills. Mining and Mining exploration should not be allowed in our Forests'.* (M, Swan Region)

*'Bring back the road side bins, maybe people wouldn't leave their rubbish behind. Educate people about pollution, we are smokers and either burn the butts, or collect them and bin them if the fire is extinguished. Stubby tops are horrible and need to be binned. All plastics, cans and glass need to be removed. Respect dieback areas. Just pick up after yourself and leave it cleaner than when you went. Education and respect for what we've got. Keep clear of diseased areas.'* (F, Swan Region)

*'Unfortunately, unsavoury people have been dumping rubbish in the forests for a long time, I would like to see actions placed to minimise and reduce the rubbish currently in forests.'*  
(F, Swan Region)

#### Restricted public access areas

*'The development of more conserved and managed areas for the public to interact with real forest supported by raised and signposted walkways and infrastructure where fire is suppressed. More active and extensive pest (fox cat rabbit) and weed eradication programs. Much more full and accelerated revegetation of damaged forest. Stop allowing people into state forest to cut down trees for firewood. Rangers patrol and fine people. Revoke law that allows firewood collection in all state forests.'* (F, South West Region)

*'Illegal entry by public vehicles into die back areas and water catchment zones. Evidence of camping away from established campsites, eg presence of fire rings. Education of principles of minimal impact bushwalking.'* (F, Swan Region)

*'Make some areas no-go zones to the public. Some parts of the forest should be given time and space away from human intrusion so that the forests/endangered animals can stabilize/recover.'* (F, Swan Region)

**Question 14: What economic, social and/or environmental opportunities do you see that can be explored in the south-west forests over the next 10 years?**

Unique responses: 1,922 (84%)

Similar themes were evident in the responses submitted to Question 13 and Question 14. Many respondents saw opportunity to introduce educational programs, including for school aged students as well as eco-tourism and immersive traditional cultural eco-tourism activations and awareness programs.

Environmental sustainability and conservation were referenced frequently by respondents, with some respondents noting the value of rehabilitation programs as well as sustainable timber harvesting practices.

**What economic social or environmental opportunities do you think could be explored over the next 10 years?**



Figure 5.0 – A statistical method was used to analyse and tag the raw data, using this approach the four most frequent tags are illustrated.

Examples of these suggested initiatives and feedback have been identified using tags and are listed below:

#### Ecotourism and tourism

*'Appreciation/ EcoTourism, Education, Cultural awareness, Honey , Regenerative forestry, Art trails/ Natural craft.'* (F, South West Region)

*'Economic should be based on ecotourism and the fact that protection of biodiversity will improve the health of the entire ecosystem. Socially and politically employment can be boosted in the same way (reskilling in renewable energies for example). Environmental opportunities are boundless.'* (F, Swan Region)

*'Education about the ecological systems of our native forests for everyone: forest management employees, stakeholders, invested parties, government ministers, land holders, residents, tourists, students. Scientific studies not only to manage forest health but to learn more about the flora and fauna - discover new things such as new medicines, new species and ways to save endangered species. Aboriginal cultural programs. Ecotourism.'* (F, South West Region)

#### Flora robust/ appropriate survival for climate change

*'I believe that this is a rare opportunity to develop a world class conservation plan that will protect our forests and allow them to recover their biological potential. As well as climate change mitigation, there is the opportunity to become a world leading example in the science and education of sustainable forestry management. This would lead to hosting of conferences and educational opportunities that would generate economic growth for the state, rather than just chasing the tourist dollar.'* (F, Swan Region)

*'Protection of forests from large scale disturbances is key to ensure resilience to climate change, protection of out flora and fauna and waterways.'* (F, Swan Region)

*'Increase in indigenous ranger opportunities, especially in fire management. Increase in ecotourism which promotes passive engagement with nature, many walking trails with adjacent tourism activities that promote earth care. Global recognition for our unique flora and aiming ecotourism at an international market to increase the importance of keeping the remaining vegetative communities intact.'* (F, South West Region)

#### Aboriginal involvement, education and cultural program

*'Carbon storage, ecological restoration, ecological corridors, Aboriginal Rangers and Land Carers, Ecotourism, bushwalking and low impact camping, education, especially ecological education, caring for Country and local Nyoongar Culture.'* (M, Swan Region)

*'Invest in ecotourism so that other peoples and cultures can enjoy an ecosystem that is unique to a very small part of this planet. Encourage education and research in this unique environment. Fund and encourage Aboriginal Cultural Programs. Fund and support small scale business such as Eco tourism ...Low impact eco accommodation. Bee Keeping.'* (M, Swan Region)

*'Increased indigenous involvement through ranger programs, cultural tourism. Educational programs to foster a connection with nature in school children such as the Forest School program in Scotland. Tourism. Scientific research to fill gaps in current knowledge of key ecosystems etc.'* (F, South West Region)

*Firstly I would like to see cultural values included as an opportunity for the benefits (environmental) that may be gained from First Nations involvement in forest management but also the possible economic, and social (e.g. health, recreation) benefits that may be*

realised. There may be benefits realised from identifying bush medicine, tourism and health experiences incorporating nature and culture e.g. Japanese Forest Bathing. Climate change mitigation and adaptation. Ecosystem services.’ (Prefer not to say, Swan Region)

**Question 15: Where would you like to see more community involvement in conserving and managing south-west forests?**

Unique responses: 1,783 (78%)

Ownership and empowerment

Many respondents want the community to feel empowered to take ownership and undertake greater restoration efforts as a collective. Respondents saw opportunities for town maintenance events which would be supported by education programs. Establishing community groups – including schools and other established groups - to volunteer regularly to maintain the forest including weeding and replanting.

Indigenous input

Respondents indicated on the value of greater indigenous input and increased financial support for cultural programs that support community education and empower action.

**Where would you like to see more community involvement?**



Figure 6.0 – A statistical method was used to analyse and tag the raw data, using this approach the six most frequent tags are illustrated.

**Question 16: What age bracket do you belong to?**

Unique responses: 2,277 (100%)

Close to half (46%) of survey respondents are aged between 45 and 64 years old, with only 13% of respondents aged under 35 years old. Of these 295 respondents, aged between 10

and 34, 75% live in the Swan region.

**Question 17: What is your gender?**

Unique responses: 2,277 (100%)

The majority of respondents are female. Almost half of female respondents are aged 55 and over.

**Question 18: What is your postcode?**

The majority of respondents (63%) are from the Swan region, the Warren region represents 7% and the South West region represents 27%, the remaining 3% represent other regions. Overall, the Swan region respondents are the most satisfied respondents, but would like to see the preservation of the forest from logging to maintain the natural environment and biodiversity and the ecosystems and habitats are supported.

In comparison, the Warren region has the highest percentage of respondents who rate their forest experience as poor. This can be improved by restoring degraded forest areas, including former logging coupes and mine sites to achieve a mature and healthy forest with a high degree of naturalness. To preserve the south-west forests, Warren region respondents have noted the need to stop the deforestation of old growth jarrah forests and cease mining operations in water catchment areas.

Overall, the Warren region based respondents indicated that forest management can be improved through consultation with skilled First Nations persons and experts with knowledge in relevant areas, including carbon storage and sustainability practices.

The more survey submissions were received from the below 10 postcodes:

- |                       |                       |
|-----------------------|-----------------------|
| • 6285 – 90 responses | • 6230 – 64 responses |
| • 6076 – 72 responses | • 6280 – 63 responses |
| • 6163 – 70 responses | • 6330 – 52 responses |
| • 6333 – 69 responses | • 6056 – 39 responses |
| • 6258 – 65 responses | • 6210 – 39 responses |

**Question 19: Are you Aboriginal or Torres Strait Islander origin?**

Unique responses: 2,277 (100%)

Respondents who identified as Aboriginal, Noongar and Torres Strait Islander visited the south-west forests more often than non-Aboriginal respondents. 40% of Aboriginal or Torres Strait Islander respondents visit the south-west forests on a daily or weekly basis.

The data represents older respondents with 73% of Aboriginal or Torres Strait Islander respondents aged 45 and older.

### 3. Themes and conclusions

The majority of respondents highly value the biodiversity of the south-west forests and use them predominately for recreation, tourism and exercise and as such are visited regularly by respondents across the State. Some respondents saw opportunity for improved amenities and facilities, with particular reference to biking, hiking and camping.

The most common suggestion to protect the forest was minimal human interference and overwhelmingly, respondents agreed that clearing, mining, logging and burning present risks to the future conservation of the south-west forests. Some respondents have commented on the redirection of water from the south-west forests to nearby commercial operations including mining and farming practices.

There is opportunity to grow eco-tourism and introduce culture emergence programs to gain community knowledge and best practice on how to protect native species and ensure the forest thrives. Many respondents referenced the need for education programs for youth, particularly programs that included traditional owner teachings and learnings.

More than half of respondents were aged 45 and over, with only 13% of respondents aged under 35 years old. It is suggested that further consultation and surveying be undertaken for this age group to ensure the data is reflective of the population.

Overall, respondents rated their experience with the south-west forests as a positive experience however have identified concerns, risks and opportunities to consider for the future management plan.

## What we heard

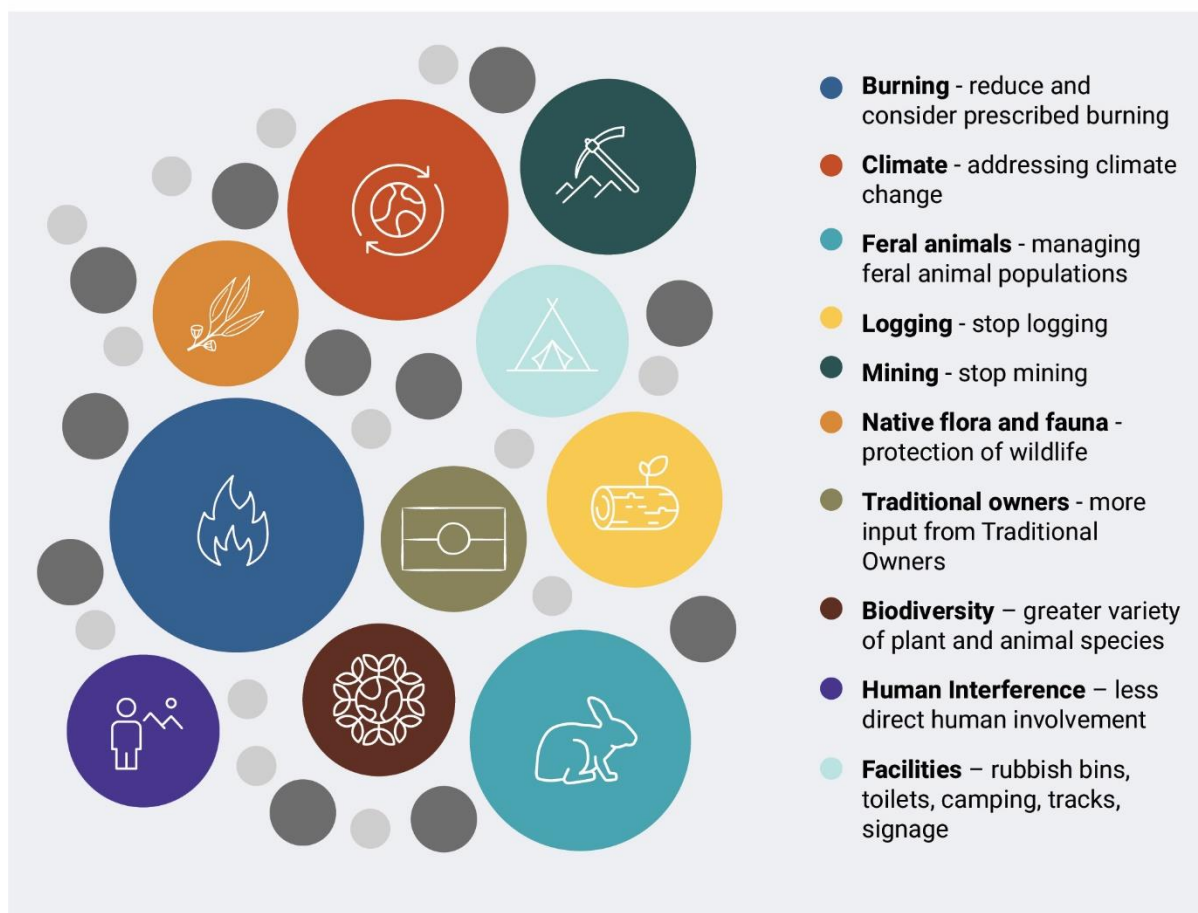


Figure 7.0 – A statistical method was used to analyse and tag the raw data, using this approach the above themes were identified.



## 4. Survey design improvements

### Index of questions

It is recommended for future surveys that an index of questions is included, so respondents are aware of the questions and do not feel obligated to include all insights, feedback and opportunities in one response.

### Targeted open-ended questions

Similar responses were received in Question 5 and Question 7 and similarities were again evident in the responses provided in Question 13 and Question 14. To mitigate the risk of receiving similar responses, it is recommended that the open-ended questions are specific to ensure reliable data that reflects the intention of the question is captured.

### Survey structure

Ensure that instructions provided are clear so that respondents are aware of the survey structure and capability to return to previous question, if they wish to include additional information.

### Completion prompter

Of the 4,242 surveys that were started by respondents, 53% were completed. The completion rate of the Pre-Draft survey is slightly lower than Typeform's benchmark of 57%, when considering the length, number of open-ended questions and detailed subject matter, a completion rate of 53% is assessed as sound. To encourage respondents to complete the survey it is recommended a pop-up is included to confirm if the respondent would like to exit the page.

### Reaching younger audiences

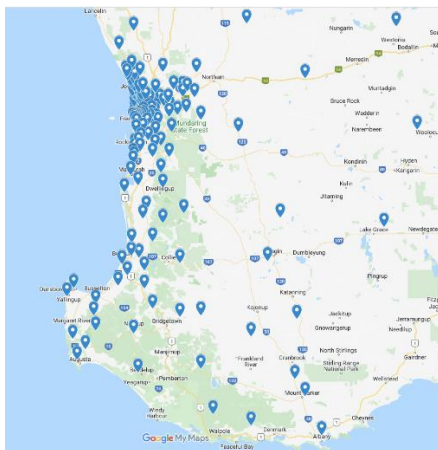
Younger people were not represented proportionally when compared to respondents aged 35 and older. To achieve better uptake and in turn increased responses from the younger audience, it is recommended that communication channels targeting younger demographics are explored. Examples of this may be ads on commercial radio, podcasts or targeted social media campaigns.

## 5. Appendix

### Appendix 1.0 *The West Australian Newspaper Advertorial and QR code, 27 April 2022.*



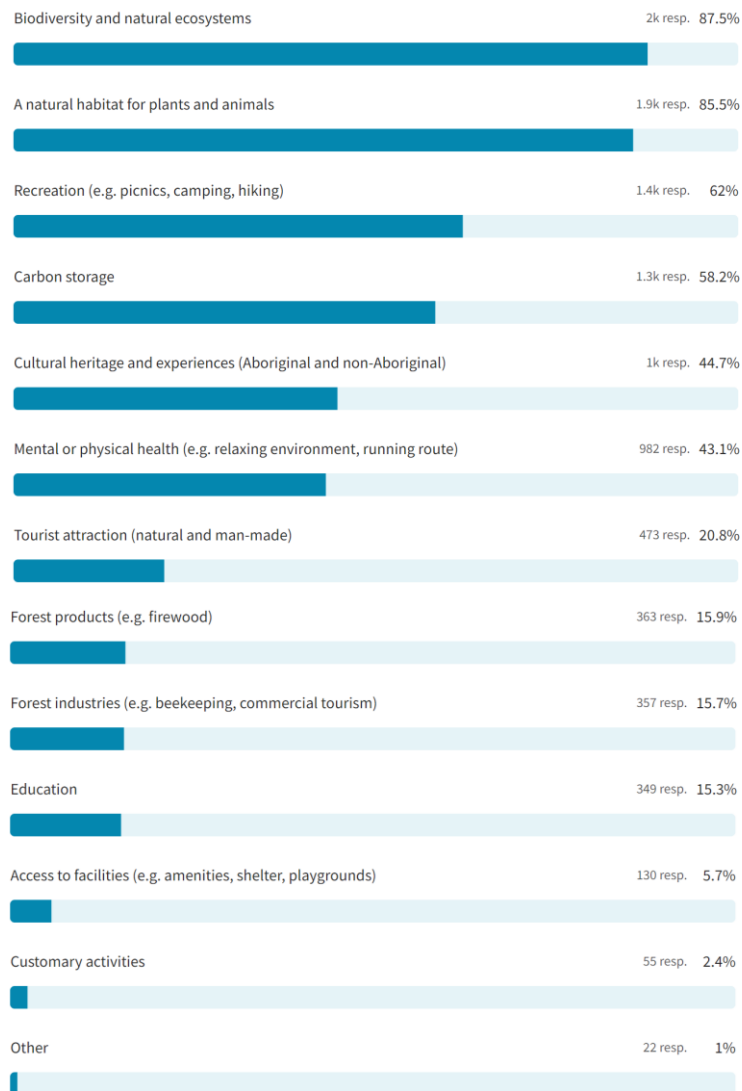
### Appendix 2.0 *Respondents distribution within the three regions*



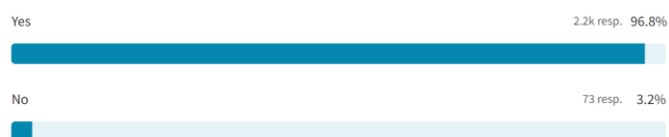
### Appendix 3.0 *Respondents distribution nationally*



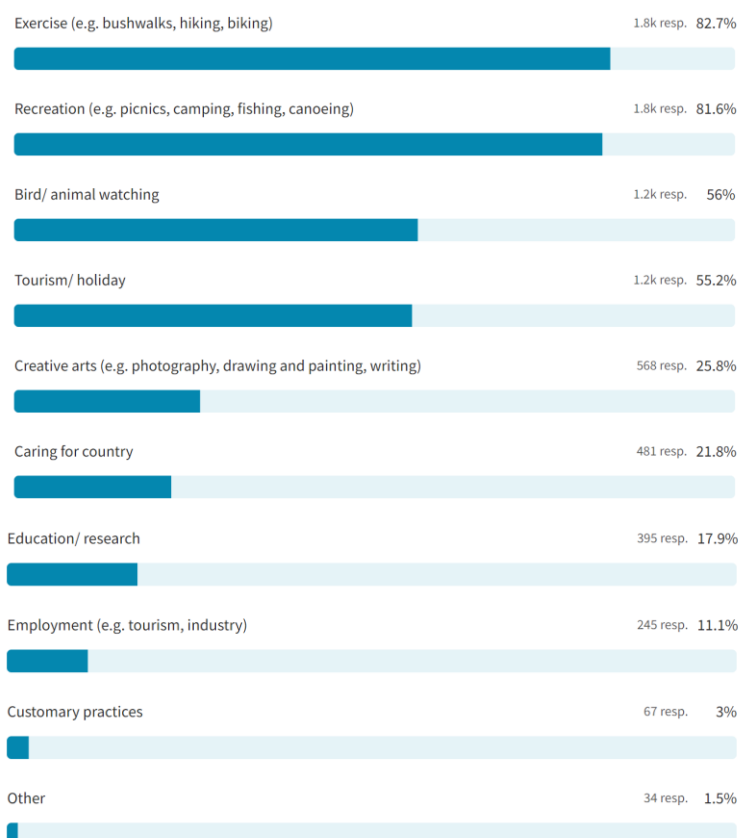
#### Appendix 4.0 Question 1: What do you value about the south-west forests?



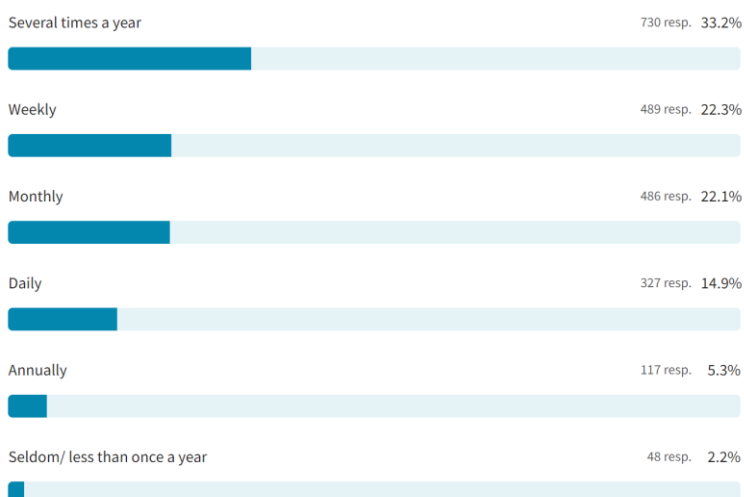
#### Appendix 5.0 Question 2: Do you use the south-west forests?



#### Appendix 6.0 Question 3: How do you use the south-west forests?

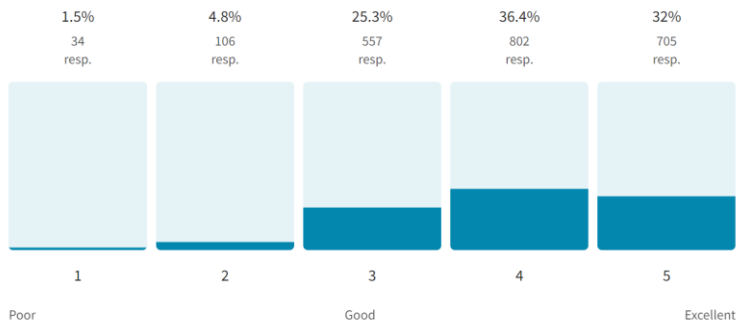


#### Appendix 7.0 Question 4: How often do you visit south-west forests?



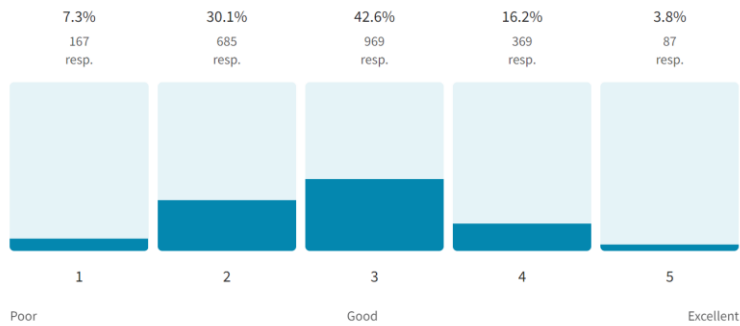
#### Appendix 8.0 Question 6: How do you rate your experience with the south-west forest?

### 3.9 Average rating

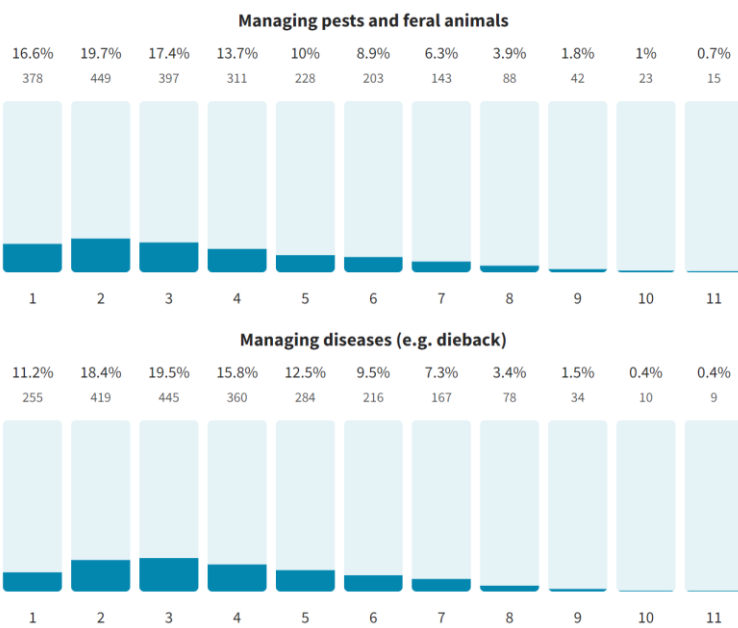


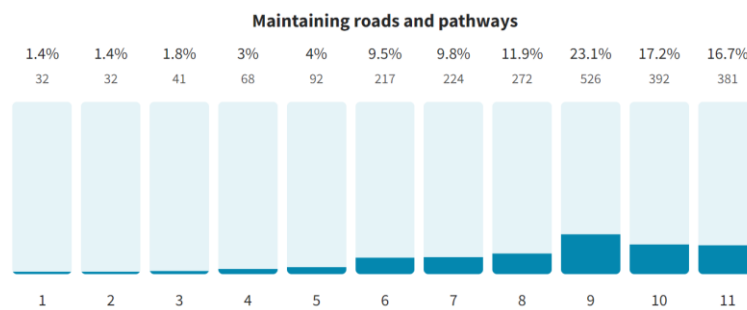
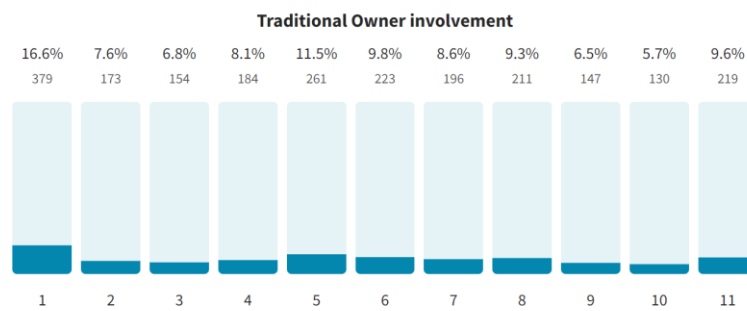
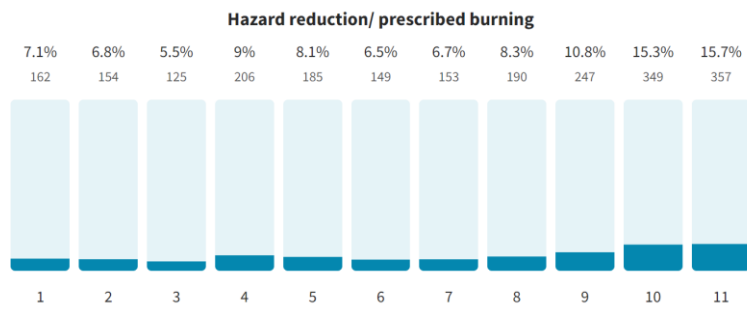
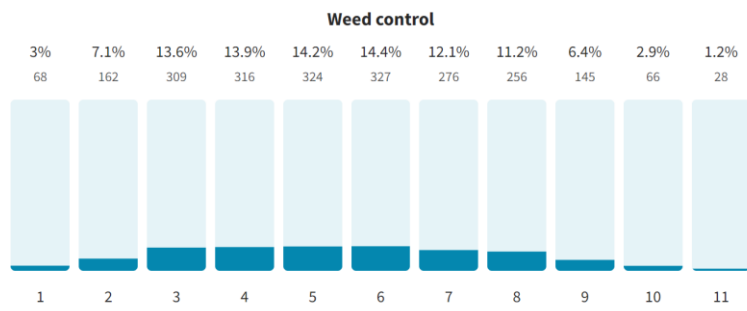
## Appendix 9.0 Question 9: How healthy do you think the south-west forests are?

### 2.8 Average rating



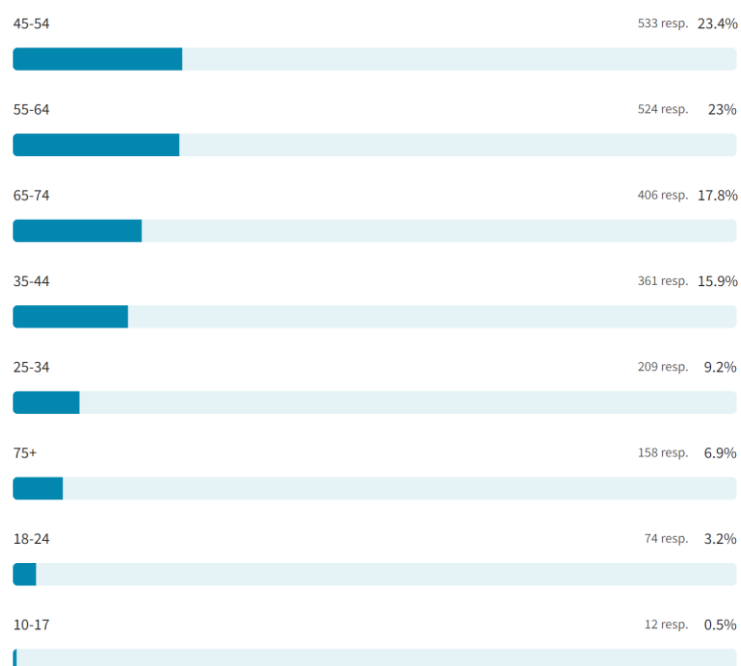
## Appendix 10.0 Question 11: What on-ground forest management activities do you think are the most important to maintain or improve forest health in a drying and warming climate?



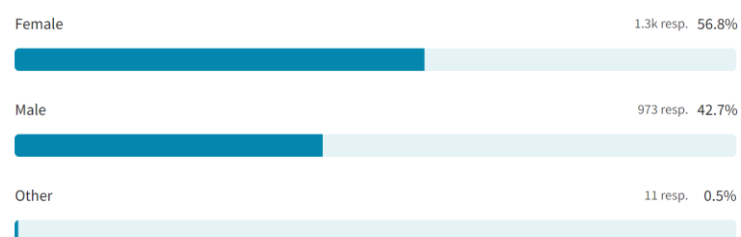




Appendix 11.0 Question 16: What age bracket do you belong to?



#### Appendix 12.0 Question 17: What is your gender?



#### Appendix 13.0 Question 19: Are you Aboriginal or Torres Strait Islander origin?

