



**DEPARTMENT OF WATER**  
**GNANGARA SUSTAINABILITY STRATEGY**

**MANAGING LAND AND GROUNDWATER  
FOR THE FUTURE**

**REPORT  
on  
COMMUNITY VIEWS SURVEY**

**JULY 2008**



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## BACKGROUND

### GNANGARA SUSTAINABILITY STRATEGY

#### Introduction

The largest source of water for Perth and surrounding areas comes from the Gnamangara groundwater system between the Swan River and Gingin Brook.

Due to declining rainfall and increasing water demand from a rising population, groundwater levels have fallen, which is becoming a major concern for those who live in Perth.

It is vital that we continue to look for the best ways to protect both our existing water supply and the wetlands and vegetation that rely on high groundwater levels.

#### About the Strategy

The Gnamangara Sustainability Strategy (GSS) is an across government initiative working on an action plan that will ensure the sustainable use of water for drinking, commercial and recreational purposes and to protect the environment.

The Gnamangara groundwater system and the natural environment on which it depends is being monitored by the Department of Water, to ensure that sufficient water is available for the community's needs. However, reduced average rainfall requires additional measures to ensure this resource is not over utilised.

A lot of work has already been undertaken and a number of gaps have been identified. Through the GSS, we are working on several projects to fill those gaps.

#### The Community Views Survey

Members of the community were invited to contribute their views about the Gnamangara Sustainability Strategy via a survey being conducted by SAVANT.

The questionnaire has been provided for completion on-line, being available for access in two ways:

1. via a link from the Department of Water website
2. by typing in an advertised link to their internet browser

The questionnaire has also been printed as a paper scannable document to be distributed at promotional events throughout the year.

The Community Views Survey was first launched at WA on Show, held at the Perth Convention Centre from 29 February to 3 March 2008 (261 responses).

Stakeholders were also encouraged to complete the survey through the distribution of GSS e-bulletins (40 responses). In April 2008, hardcopies of the questionnaire were mailed out to over 280 members of the community extracted from the GSS stakeholder database (94 responses).

These community members were selected as they are not necessarily part of any organisation or community group but have shown an interest in natural resource management over a number of years.

An advertisement was placed in all community newspapers in mid June 2008 encouraging readers to access the questionnaire on-line. 10 surveys were completed at this time.

## SUMMARY OF RESPONSES

TOTAL PERTH POPULATION	1,600 000 (2008 approx)
SAMPLE REQUIRED TO MEET STATISTICAL STANDARD*	384
SAMPLE ACHIEVED	401
CURRENT RESPONSE RATE FOR POPULATION	0.025%
CURRENT SAMPLING ERROR AT 95% CONFIDENCE LEVEL	+/- 4.89%

Please note that the sample size obtained (n=401) has **exceeded** the statistical standard\* (95% Level of Confidence & +/- 5 Sampling Error Interval) for the given population (N = 1,600 000 approx).

Therefore, generalisations from the sample to the population **can** be confidently made.

## ANALYSIS AND REPORTING DEFINITIONS

### Statistical Tables:

'*Frequency*' refers to the number of *Respondents* who indicated that particular response.

'*Percent*' is used to express a proportion of an amount in hundredths.

'*Valid Percent*' refers to the *Percent* when missing values have been excluded from the calculation.

'*Cumulative Percent*' refers to the accumulation of the Valid Percent with each category.

### Qualitative Interpretations:

'*Satisfied*' refers to the combined categories of Very Satisfied, Moderately Satisfied and Mildly Satisfied.

'*Dissatisfied*' refers to the combined categories of Very Dissatisfied, Moderately Dissatisfied and Mildly Dissatisfied.

'*Respondents*' refers to the respondents who provided a response for that particular question.

'*Percent*' refers to percentage of *Respondents*

## PART A: HORTICULTURE

The horticulture industry in the Wanneroo region has traditionally provided a valuable source of vegetables and some fruit for the Perth market. More recently there has been a global focus on growing food locally for freshness and to reduce total energy use (food miles).

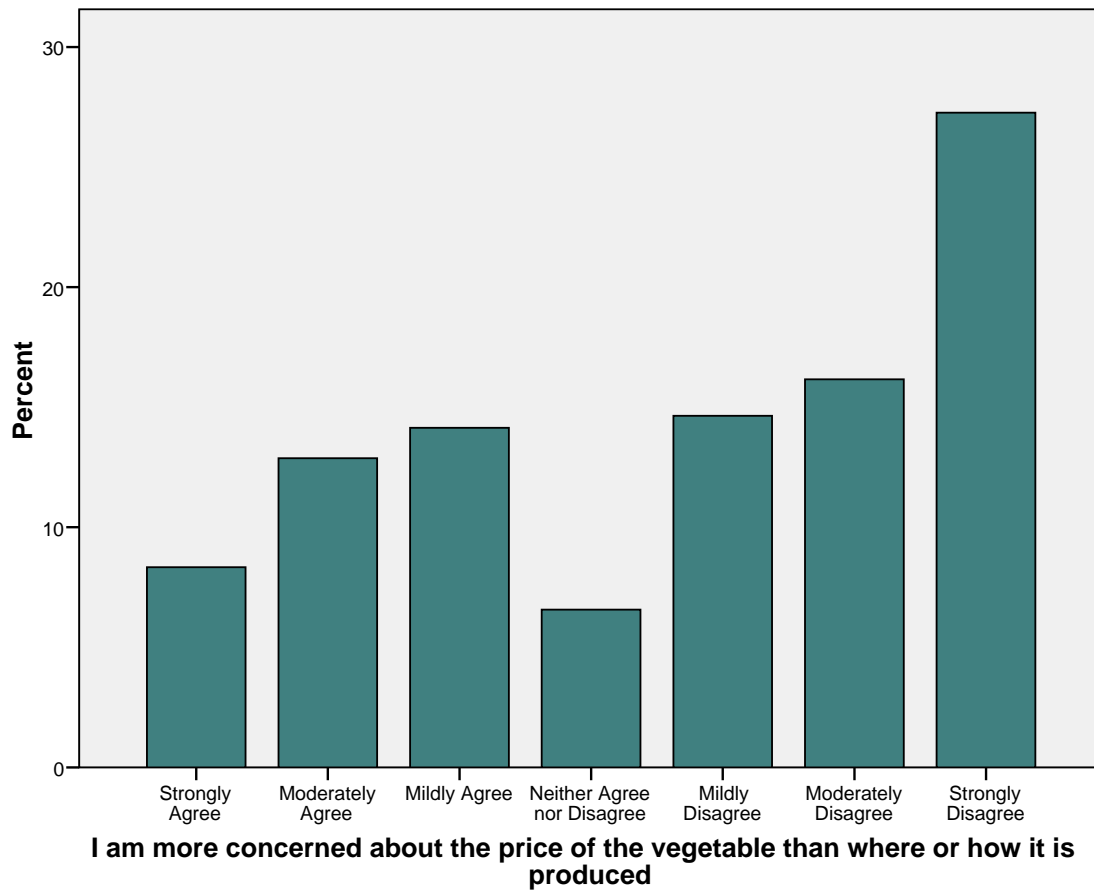
Horticulture is a large user of groundwater from the Gnangara groundwater system, along with domestic water supply.

Using recycled wastewater treated to a standard for vegetables approved by the Department of Health is an option being considered, but costs of production may increase. Vegetables are already grown in SA and VIC using recycled wastewater and are distributed to markets around Australia. Alternatively, recycled wastewater could be used for domestic or industrial purposes.

### Question A1a.

*I am more concerned about the price of the vegetable than where or how it is produced*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	33	8.2	8.3	8.3
	Moderately Agree	51	12.7	12.9	21.2
	Mildly Agree	56	14.0	14.1	35.4
	Neither Agree nor Disagree	26	6.5	6.6	41.9
	Mildly Disagree	58	14.5	14.6	56.6
	Moderately Disagree	64	16.0	16.2	72.7
	Strongly Disagree	108	26.9	27.3	100.0
	Total	396	98.8	100.0	
Missing	System	5	1.2		
Total		401	100.0		



**Qualitative Interpretation:**

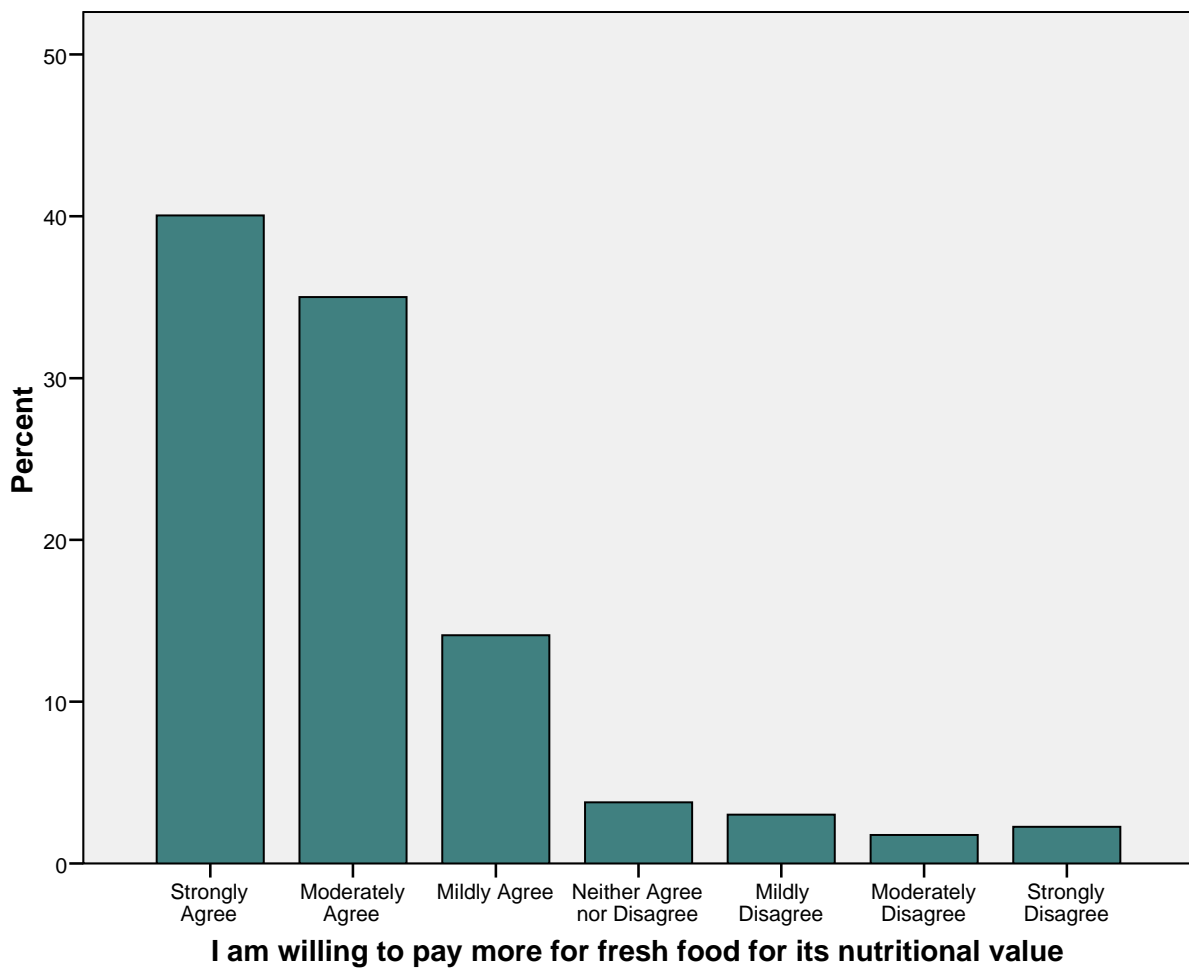
The results indicate that respondents are more concerned with where and how a vegetable is produced than its price.

*Agreement* subscale [ie Strongly Agree (8.3%), Moderately Agree (12.9%), and Mildly Agree (14.1%); **Total Agreement = 35.4%**] and *Disagreement* subscale [ie Strongly Disagree (27.3%), Moderately Disagree (16.2%), and Mildly Disagree (14.6%); **Total Disagreement = 58.1%**]

**Question A1b.**

*I am willing to pay more for fresh food for its nutritional value*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	159	39.7	40.1	40.1
	Moderately Agree	139	34.7	35.0	75.1
	Mildly Agree	56	14.0	14.1	89.2
	Neither Agree nor Disagree	15	3.7	3.8	92.9
	Mildly Disagree	12	3.0	3.0	96.0
	Moderately Disagree	7	1.7	1.8	97.7
	Strongly Disagree	9	2.2	2.3	100.0
	Total	397	99.0	100.0	
Missing	System	4	1.0		
Total		401	100.0		



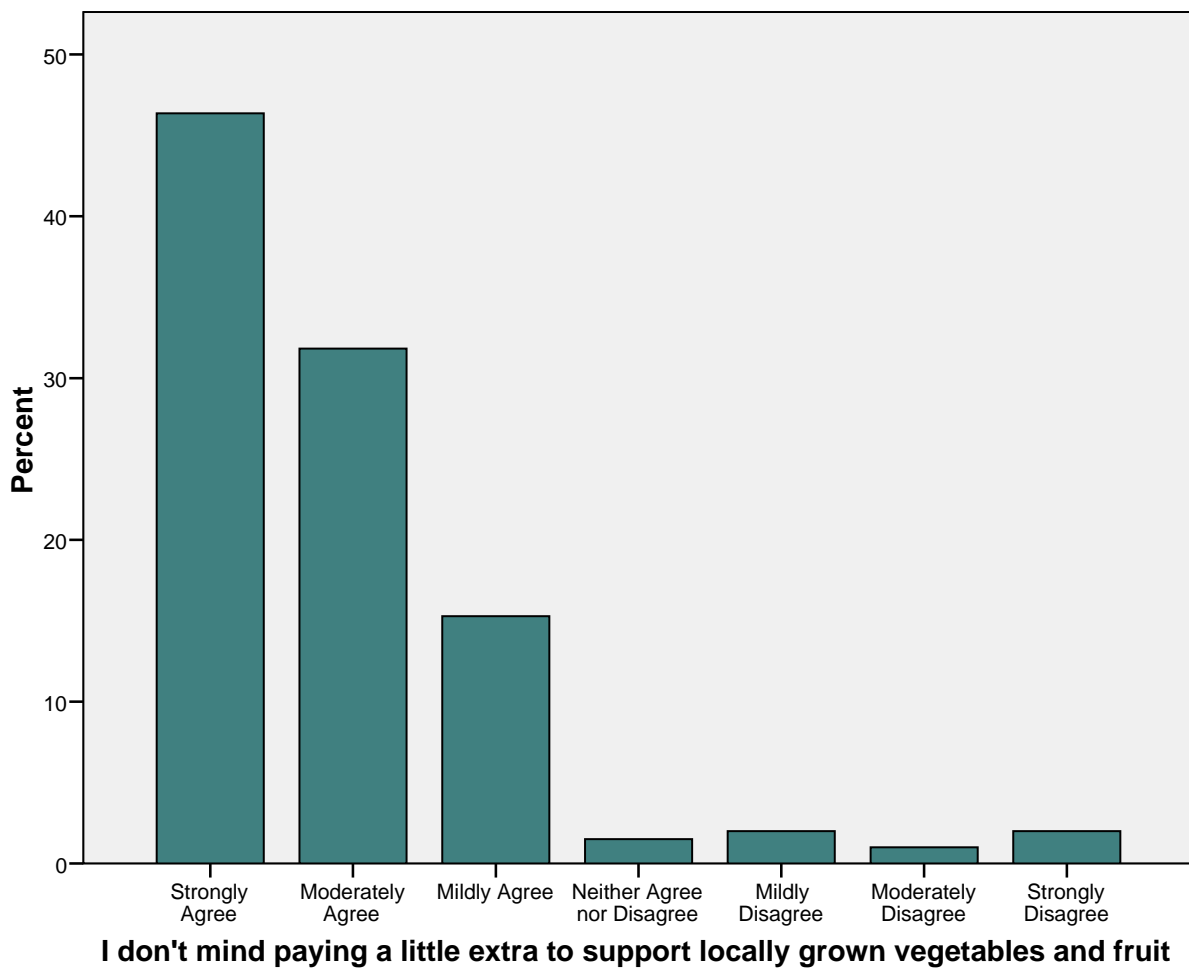
**Qualitative Interpretation:**

Approximately 89% of respondents *Agreed* [Strongly Agree (40.1%), Moderately Agree (35.0%) and Mildly Agree (14.1%)] that they were willing to pay more for fresh food for its nutritional value.

**Question A1c.**

*I don't mind paying a little extra to support locally grown vegetables and fruit*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	185	46.1	46.4	46.4
	Moderately Agree	127	31.7	31.8	78.2
	Mildly Agree	61	15.2	15.3	93.5
	Neither Agree nor Disagree	6	1.5	1.5	95.0
	Mildly Disagree	8	2.0	2.0	97.0
	Moderately Disagree	4	1.0	1.0	98.0
	Strongly Disagree	8	2.0	2.0	100.0
Total		399	99.5	100.0	
Missing	System	2	.5		
Total		401	100.0		



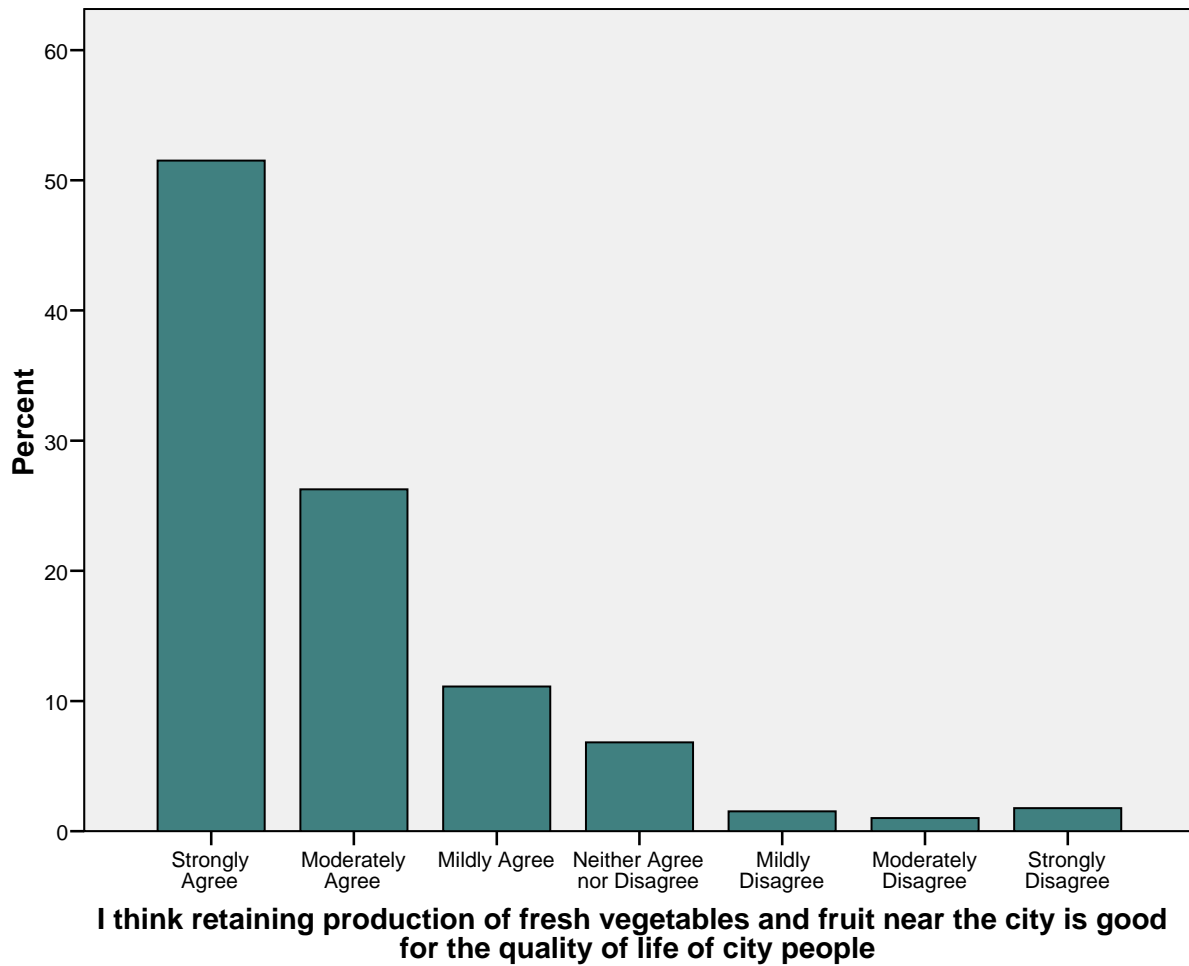
**Qualitative Interpretation:**

Approximately 94% of respondents *Agreed* [Strongly Agree (46.4%), Moderately Agree (31.8%) and Mildly Agree (15.3%)] that they wouldn't mind paying a little extra to support locally grown vegetables and fruit.

**Question A1d.**

*I think retaining production of fresh vegetables and fruit near the city is good for the quality of life of city people*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	204	50.9	51.5	51.5
	Moderately Agree	104	25.9	26.3	77.8
	Mildly Agree	44	11.0	11.1	88.9
	Neither Agree nor Disagree	27	6.7	6.8	95.7
	Mildly Disagree	6	1.5	1.5	97.2
	Moderately Disagree	4	1.0	1.0	98.2
	Strongly Disagree	7	1.7	1.8	100.0
Total		396	98.8	100.0	
Missing	System	5	1.2		
Total		401	100.0		



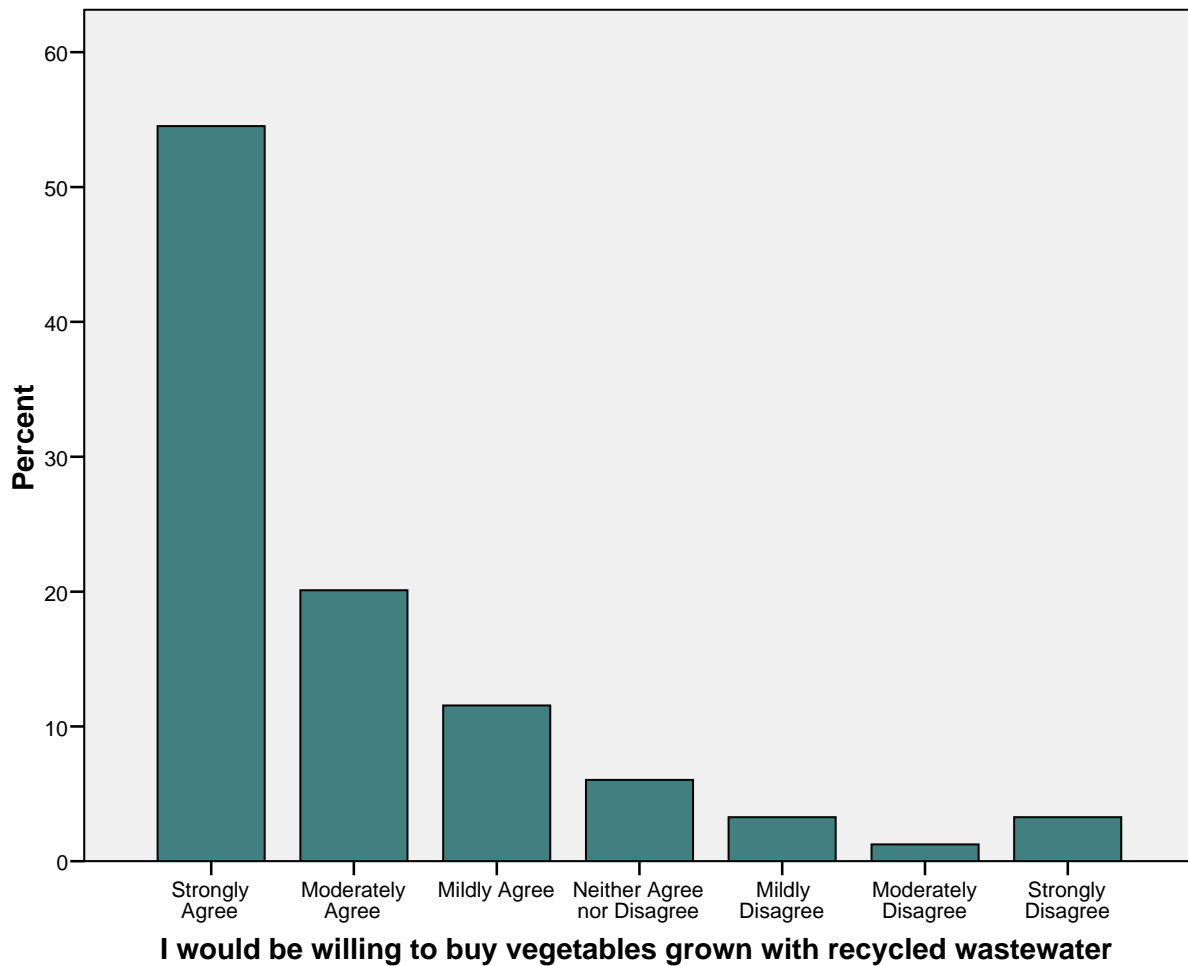
**Qualitative Interpretation:**

Approximately 89% of respondents *Agreed* [Strongly Agree (41.5%), Moderately Agree (26.3%) and Mildly Agree (11.1%)] that retaining production of fresh vegetables and fruit near the city is good for the quality of life of city people.

**Question A1e.**

*I would be willing to buy vegetables grown with recycled wastewater*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	217	54.1	54.5	54.5
	Moderately Agree	80	20.0	20.1	74.6
	Mildly Agree	46	11.5	11.6	86.2
	Neither Agree nor Disagree	24	6.0	6.0	92.2
	Mildly Disagree	13	3.2	3.3	95.5
	Moderately Disagree	5	1.2	1.3	96.7
	Strongly Disagree	13	3.2	3.3	100.0
	Total	398	99.3	100.0	
Missing	System	3	.7		
Total		401	100.0		



**Qualitative Interpretation:**

Approximately 86% of respondents *Agreed* [Strongly Agree (54.5%), Moderately Agree (20.1%) and Mildly Agree (11.6%)] they would be willing to buy vegetables grown with recycled wastewater.

## Question A2.

Respondents were asked to “**Please provide any comments you would like to make regarding horticulture**”.

The most common themes in decreasing frequency were:

- **Locally Grown (Western Australian) Produce is Best** (n=21 comments) e.g. “Fruit and veg should be home grown for our taste, nutrition and economy”.
- **Recycled/Wastewater Use** (n=7 comments) e.g. “Recycling waste water is essential for water sustainability”.
- **Concerns/Queries about Contamination of Produce** (n=9 comments) e.g. “Provided extensive research has been conducted to ascertain no detrimental effects on vegetable production and consumption”.
- **Use of Rainwater Tanks** (n=3 comments) e.g. “We should all have water tanks as part of newly constructed houses”.

## PART B: LAND USE

Some land use change, including urban development and removing or thinning pine plantations can increase groundwater recharge and raise groundwater levels. However, some of these changes have implications for groundwater quality, other land uses and the environment.

In addition, the State Government has entered into an agreement to supply timber from the Gngara pine plantations until 2029. The harvest regime to fulfil this contract will affect the timing and location of land available for alternative uses.

Possible alternative uses including replanting pines, replacing pines with native bushland, horticulture and/or urban/industrial development.

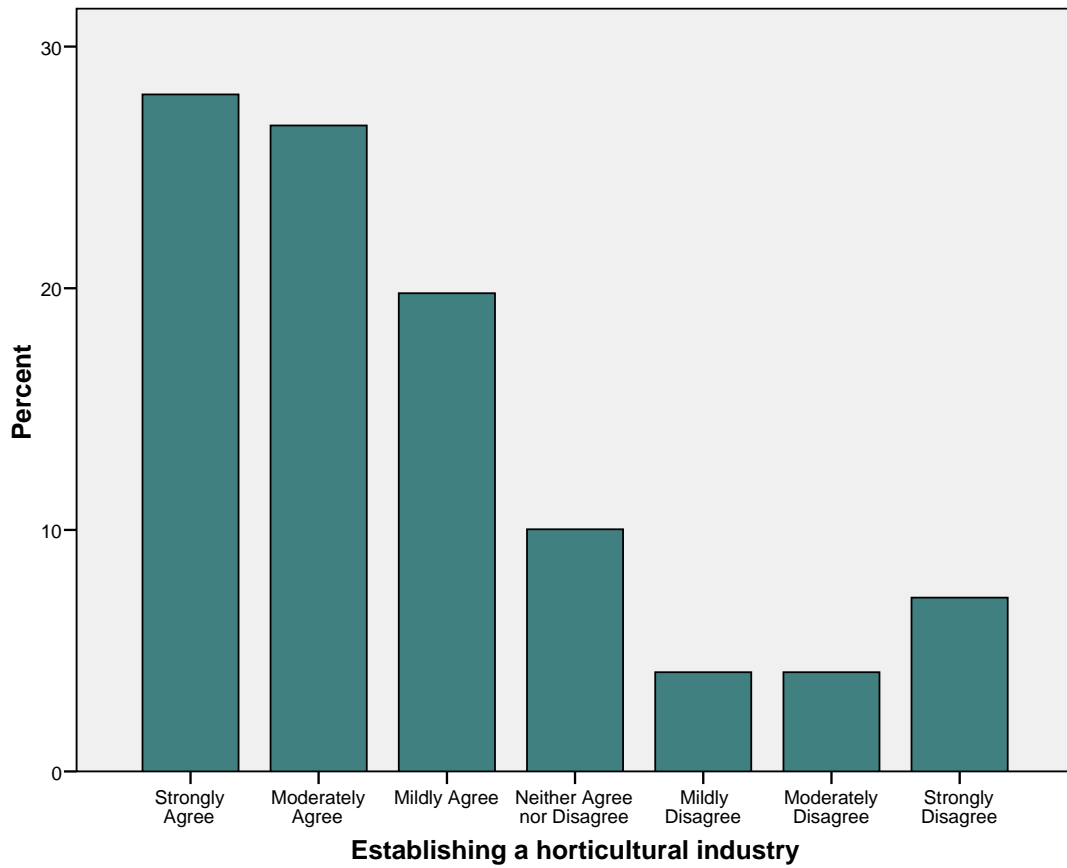
### Question B1:

Please indicate your level of agreement about the following options being the best alternative land use, once pines are harvested.

### Question B1a.

#### *Establishing a horticultural industry*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	109	27.2	28.0	28.0
	Moderately Agree	104	25.9	26.7	54.8
	Mildly Agree	77	19.2	19.8	74.6
	Neither Agree nor Disagree	39	9.7	10.0	84.6
	Mildly Disagree	16	4.0	4.1	88.7
	Moderately Disagree	16	4.0	4.1	92.8
	Strongly Disagree	28	7.0	7.2	100.0
	<b>Total</b>	<b>389</b>	<b>97.0</b>	<b>100.0</b>	
Missing	System	12	3.0		
<b>Total</b>		<b>401</b>	<b>100.0</b>		



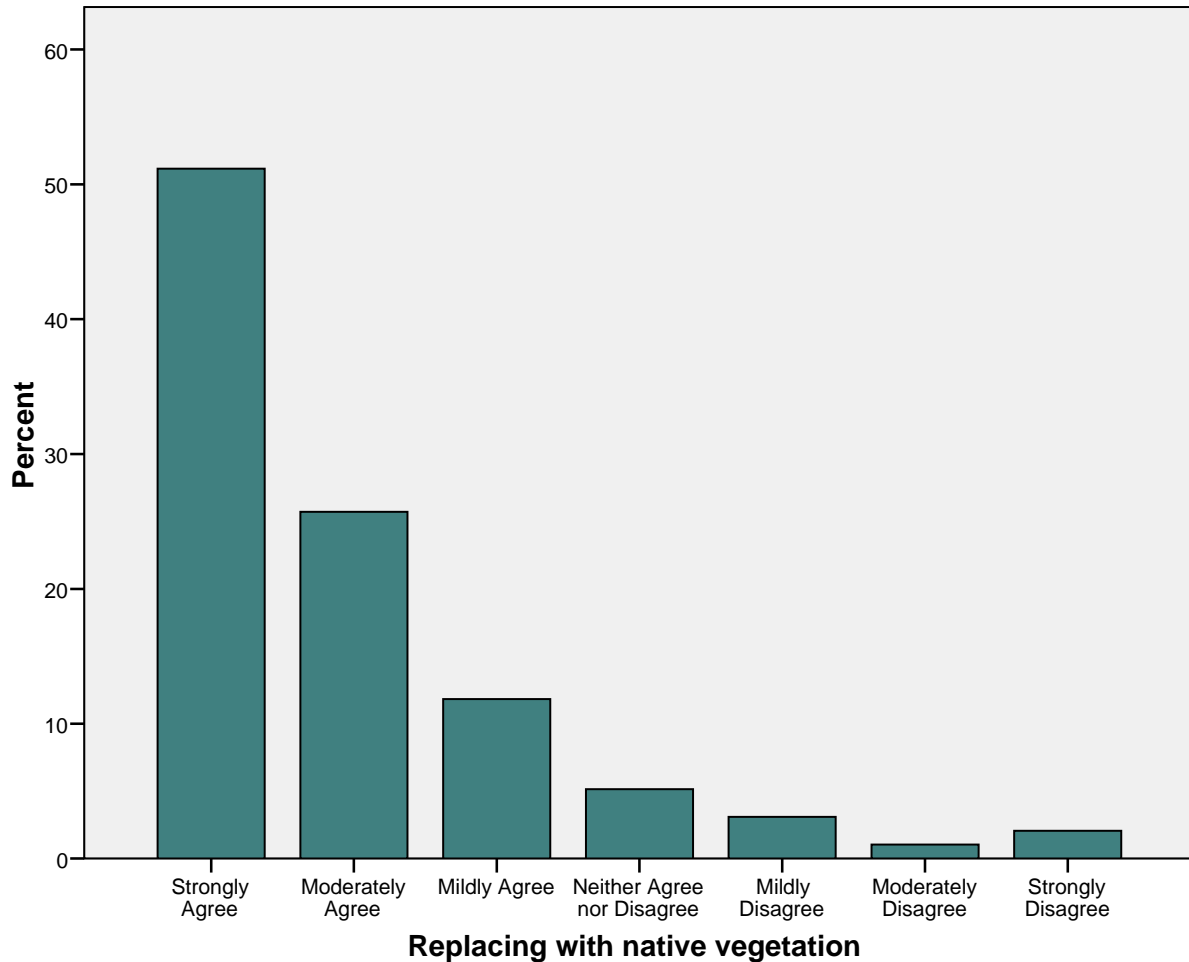
**Qualitative Interpretation:**

Approximately 75% of respondents *Agreed* [Strongly Agree (28.0%), Moderately Agree (26.7%) and Mildly Agree (19.8%)] that establishing a horticultural industry is the best alternative land use once pines are harvested.

**Question B1b.**

**Replacing with native vegetation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	199	49.6	51.2	51.2
	Moderately Agree	100	24.9	25.7	76.9
	Mildly Agree	46	11.5	11.8	88.7
	Neither Agree nor Disagree	20	5.0	5.1	93.8
	Mildly Disagree	12	3.0	3.1	96.9
	Moderately Disagree	4	1.0	1.0	97.9
	Strongly Disagree	8	2.0	2.1	100.0
	Total	389	97.0	100.0	
Missing	System	12	3.0		
Total		401	100.0		



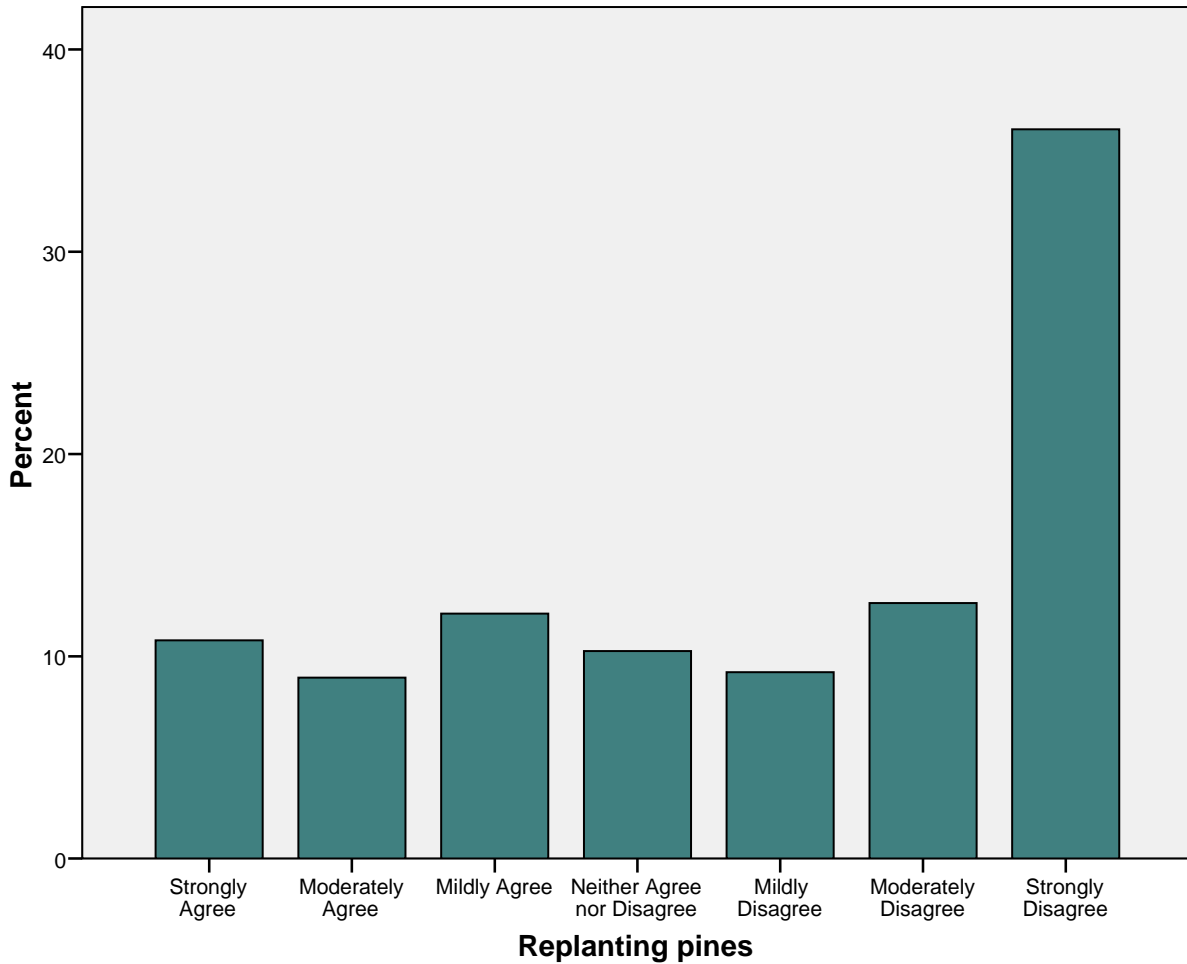
**Qualitative Interpretation:**

Approximately 89% respondents *Agreed* [Strongly Agree (51.2%), Moderately Agree (25.7%) and Mildly Agree (11.8%)] that replacing with native vegetation is the best alternative land use once pines are harvested.

**Question B1c.**

**Replanting pines**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	41	10.2	10.8	10.8
	Moderately Agree	34	8.5	8.9	19.7
	Mildly Agree	46	11.5	12.1	31.8
	Neither Agree nor Disagree	39	9.7	10.3	42.1
	Mildly Disagree	35	8.7	9.2	51.3
	Moderately Disagree	48	12.0	12.6	63.9
	Strongly Disagree	137	34.2	36.1	100.0
Total		380	94.8	100.0	
Missing	System	21	5.2		
Total		401	100.0		



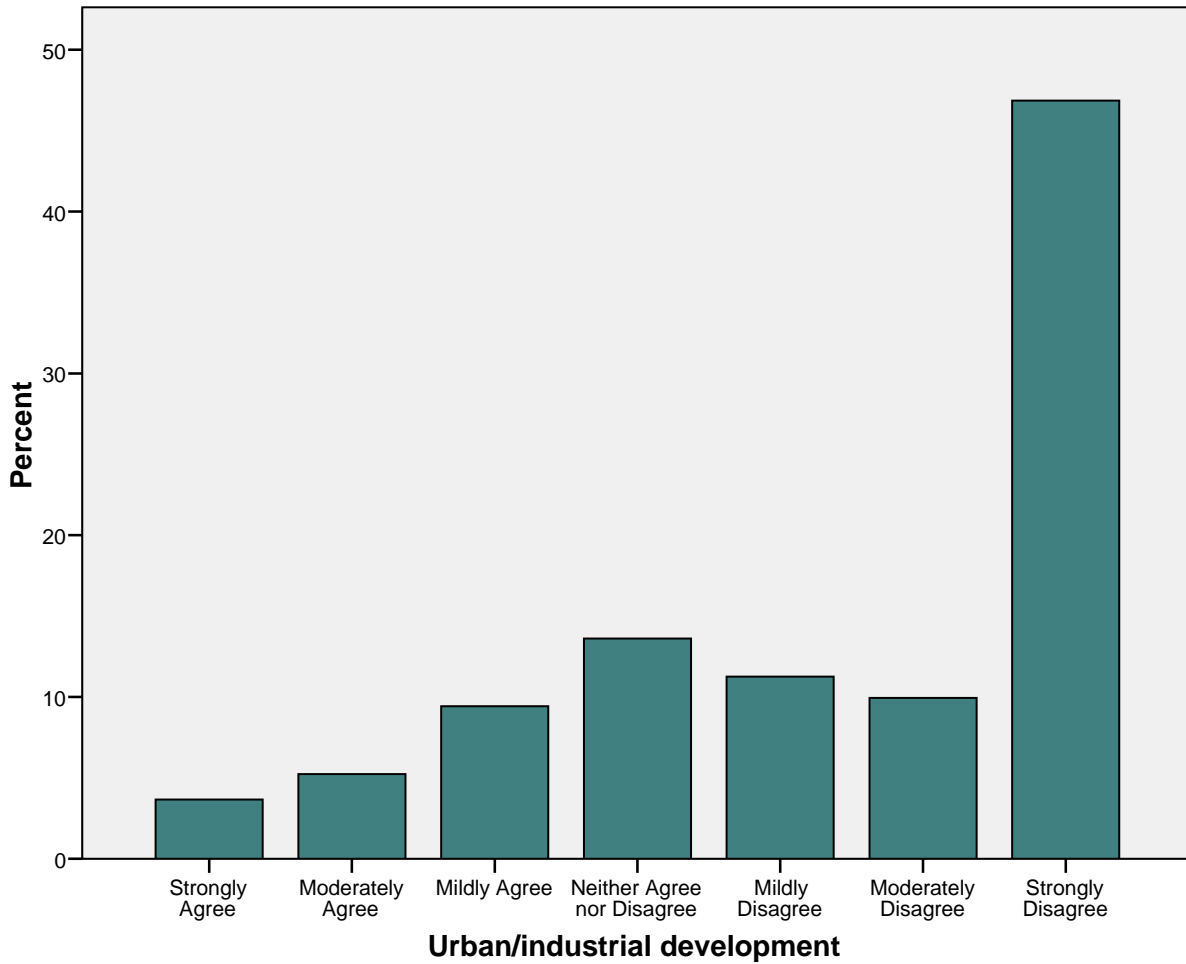
**Qualitative Interpretation:**

Approximately 58% of respondents *Disagree* [Strongly Disagree (36.1%), Moderately Disagree (12.6%) and Mildly Disagree (9.2%)] that replanting pines is the best alternative land use once pines are harvested.

**Question B1d.**

**Urban/industrial development**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	14	3.5	3.7	3.7
	Moderately Agree	20	5.0	5.2	8.9
	Mildly Agree	36	9.0	9.4	18.3
	Neither Agree nor Disagree	52	13.0	13.6	31.9
	Mildly Disagree	43	10.7	11.3	43.2
	Moderately Disagree	38	9.5	9.9	53.1
	Strongly Disagree	179	44.6	46.9	100.0
Total		382	95.3	100.0	
Missing	System	19	4.7		
Total		401	100.0		



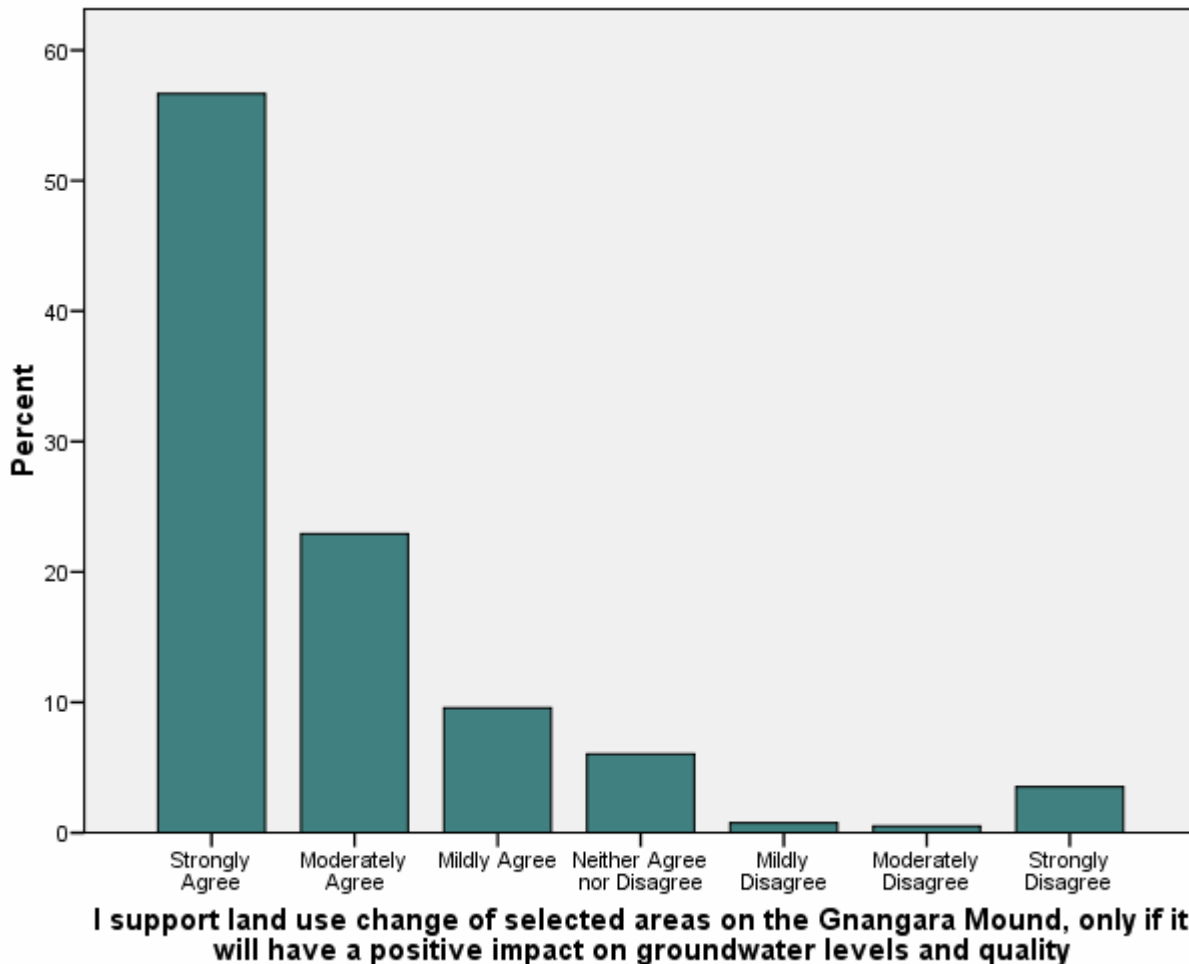
**Qualitative Interpretation:**

Approximately 57% of respondents *Disagree* [Strongly Disagree (46.9%), Moderately Disagree (9.9%) and Mildly Disagree (11.3%)] that urban/industrial development is the best alternative land use once pines are harvested.

**Question B2a.**

*I support land use change of selected areas on the Gngangara Mound, only if it will have a positive impact on groundwater levels and quality*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	225	56.1	56.7	56.7
	Moderately Agree	91	22.7	22.9	79.6
	Mildly Agree	38	9.5	9.6	89.2
	Neither Agree nor Disagree	24	6.0	6.0	95.2
	Mildly Disagree	3	.7	.8	96.0
	Moderately Disagree	2	.5	.5	96.5
	Strongly Disagree	14	3.5	3.5	100.0
Total		397	99.0	100.0	
Missing	System	4	1.0		
Total		401	100.0		



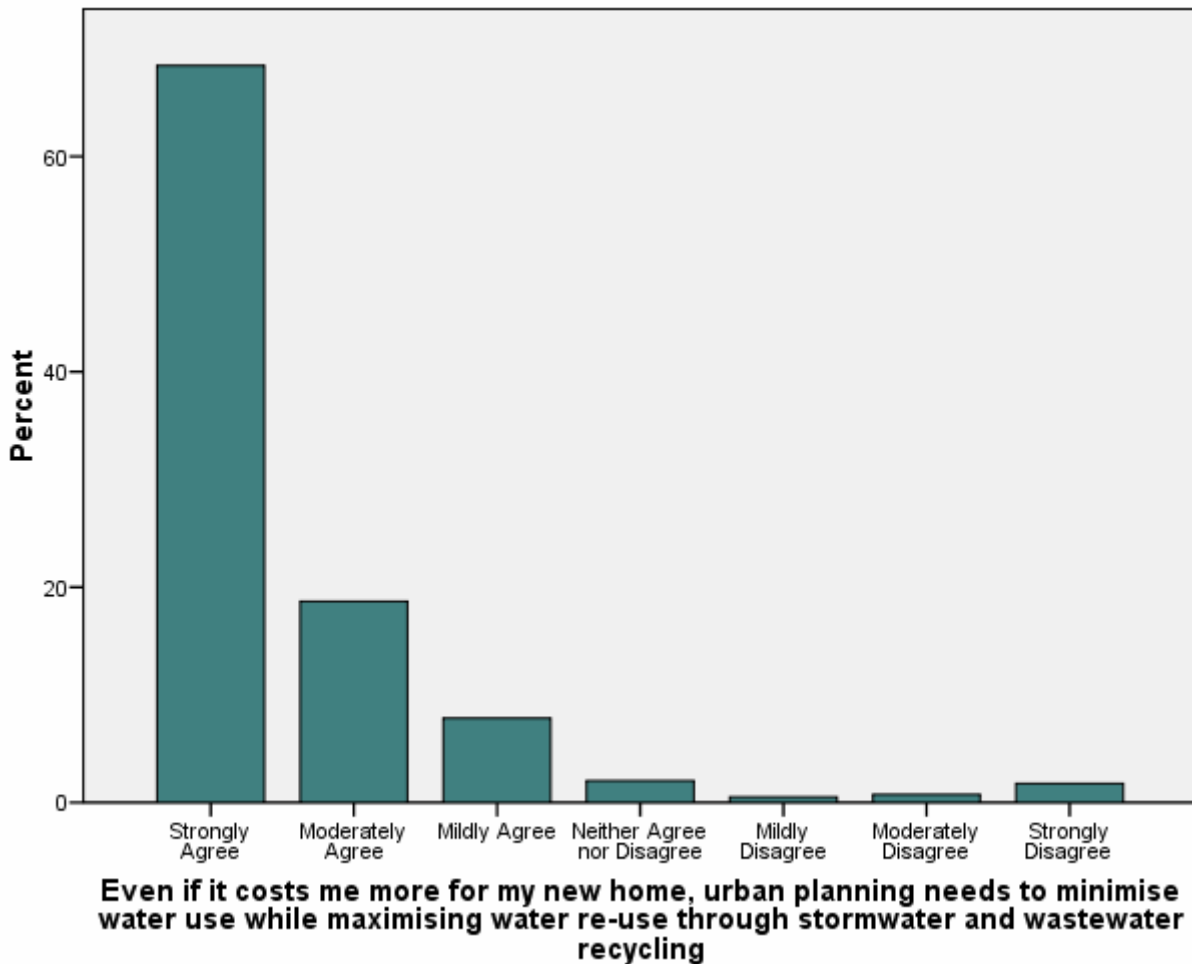
**Qualitative Interpretation:**

Approximately 89% of respondents *Agreed* [Strongly Agree (56.7%), Moderately Agree (22.9%) and Mildly Agree (9.6%)] they support land use change of selected areas on the Gngangara Mound, only if it will have a positive impact on groundwater levels and quality.

**Question B2b.**

***Even if it costs me more for my new home, urban planning needs to minimise water use while maximising water re-use through stormwater and wastewater recycling***

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	271	67.6	68.4	68.4
	Moderately Agree	74	18.5	18.7	87.1
	Mildly Agree	31	7.7	7.8	94.9
	Neither Agree nor Disagree	8	2.0	2.0	97.0
	Mildly Disagree	2	.5	.5	97.5
	Moderately Disagree	3	.7	.8	98.2
	Strongly Disagree	7	1.7	1.8	100.0
	Total	396	98.8	100.0	
Missing	System	5	1.2		
Total		401	100.0		



**Qualitative Interpretation:**

Approximately 95% of respondents *Agreed* [Strongly Agree (68.4%), Moderately Agree (18.7%) and Mildly Agree (7.8%)] that even if it costs them more for their new home, urban planning needs to minimise water use while maximising water re-use through stormwater and wastewater recycling.

### Question B3.

Respondents were asked to “**Please provide any comments you would like to make regarding land use**”.

The most common themes in decreasing frequency were:

- **Planning and Development for Future Land Use** (n=17 comments) e.g. “Sustainable development needs to become paramount when considering new urban developments”.
- **Grey/Rainwater Recycling in Land Use** (n=16 comments) e.g. “More homes should be installed with rain tanks and grey water tanks”.
- **Costs and Incentives for Changes in Land Use** (n=7 comments) e.g. “There should be subsidies for grey water units”.
- **Lawn/Garden Changes in Land Use** (n=6 comments) e.g. “Cut the size of the home sites, the front yard and back yard is not used very often - they are wasted areas”.

## PART C: BIODIVERSITY

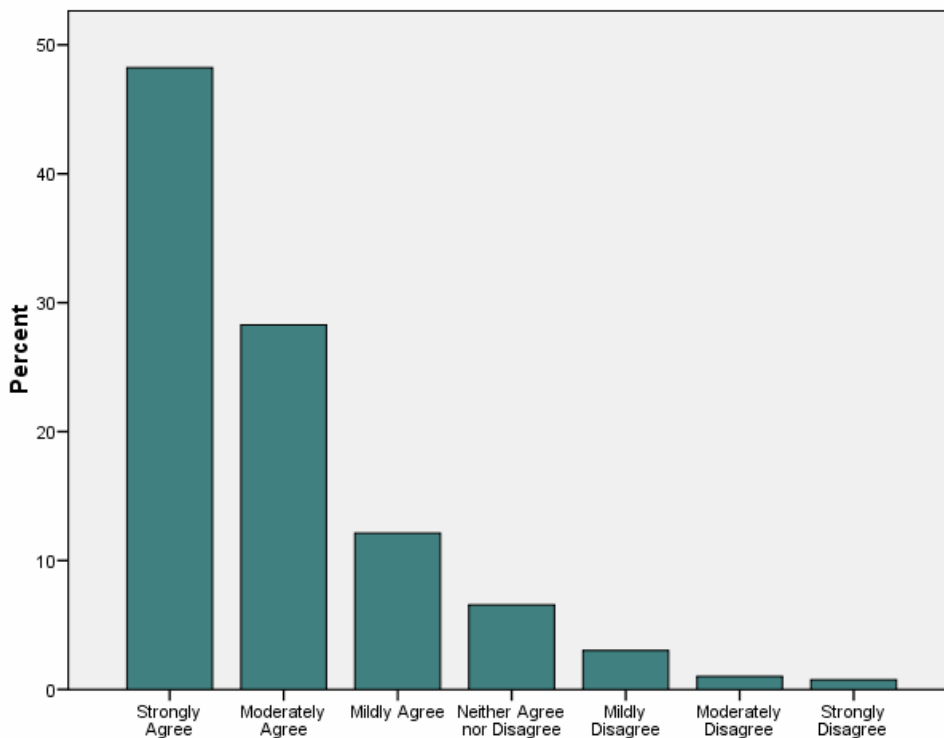
Biodiversity on the Gnangara groundwater system is diverse, unique and under threat due to declining groundwater levels. There are threatened species (e.g. Western Swamp Tortoise), threatened ecological communities (e.g. Yanchep cave communities) and some 600 wetlands dependent on this groundwater.

The 70,000 ha of native bushland across the mound, mainly Banksia woodland, also faces numerous threats from clearing for development and agriculture, feral animals, weeds, dieback disease and wildfires.

### Question C1a.

#### *Climate change will severely impact biodiversity around Perth in next 20 years*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	191	47.6	48.2	48.2
	Moderately Agree	112	27.9	28.3	76.5
	Mildly Agree	48	12.0	12.1	88.6
	Neither Agree nor Disagree	26	6.5	6.6	95.2
	Mildly Disagree	12	3.0	3.0	98.2
	Moderately Disagree	4	1.0	1.0	99.2
	Strongly Disagree	3	.7	.8	100.0
	Total	396	98.8	100.0	
Missing	System	5	1.2		
Total		401	100.0		



**Climate change will severely impact biodiversity around Perth in next 20 years**

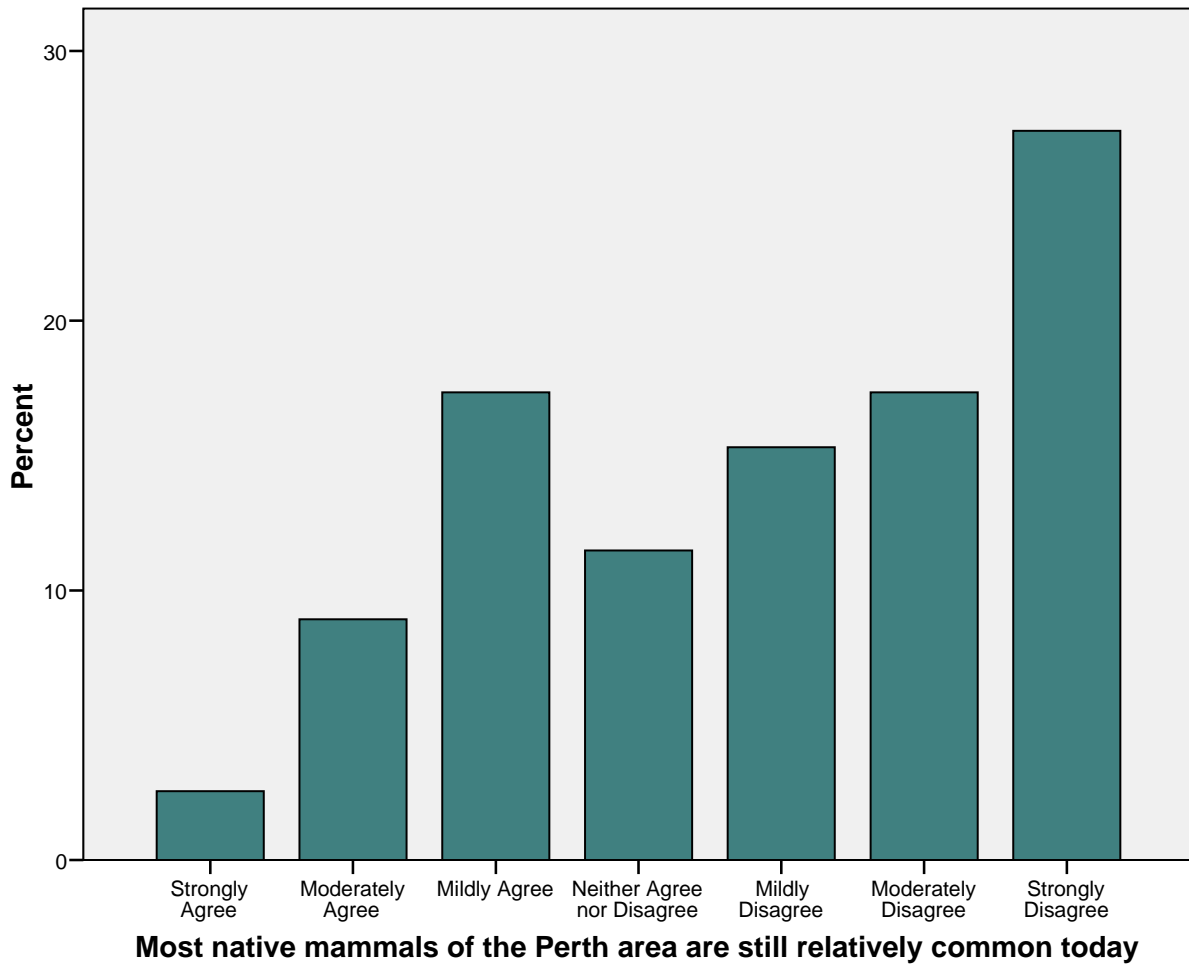
#### **Qualitative Interpretation:**

Approximately 87% of respondents *Agreed* [Strongly Agree (48.2%), Moderately Agree (28.3%) and Mildly Agree (12.1%)] that climate change will severely impact biodiversity around Perth in the next 20 years.

**Question C1b.**

***Most native mammals of the Perth area are still relatively common today***

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	10	2.5	2.6	2.6
	Moderately Agree	35	8.7	8.9	11.5
	Mildly Agree	68	17.0	17.3	28.8
	Neither Agree nor Disagree	45	11.2	11.5	40.3
	Mildly Disagree	60	15.0	15.3	55.6
	Moderately Disagree	68	17.0	17.3	73.0
	Strongly Disagree	106	26.4	27.0	100.0
	Total	392	97.8	100.0	
Missing	System	9	2.2		
Total		401	100.0		



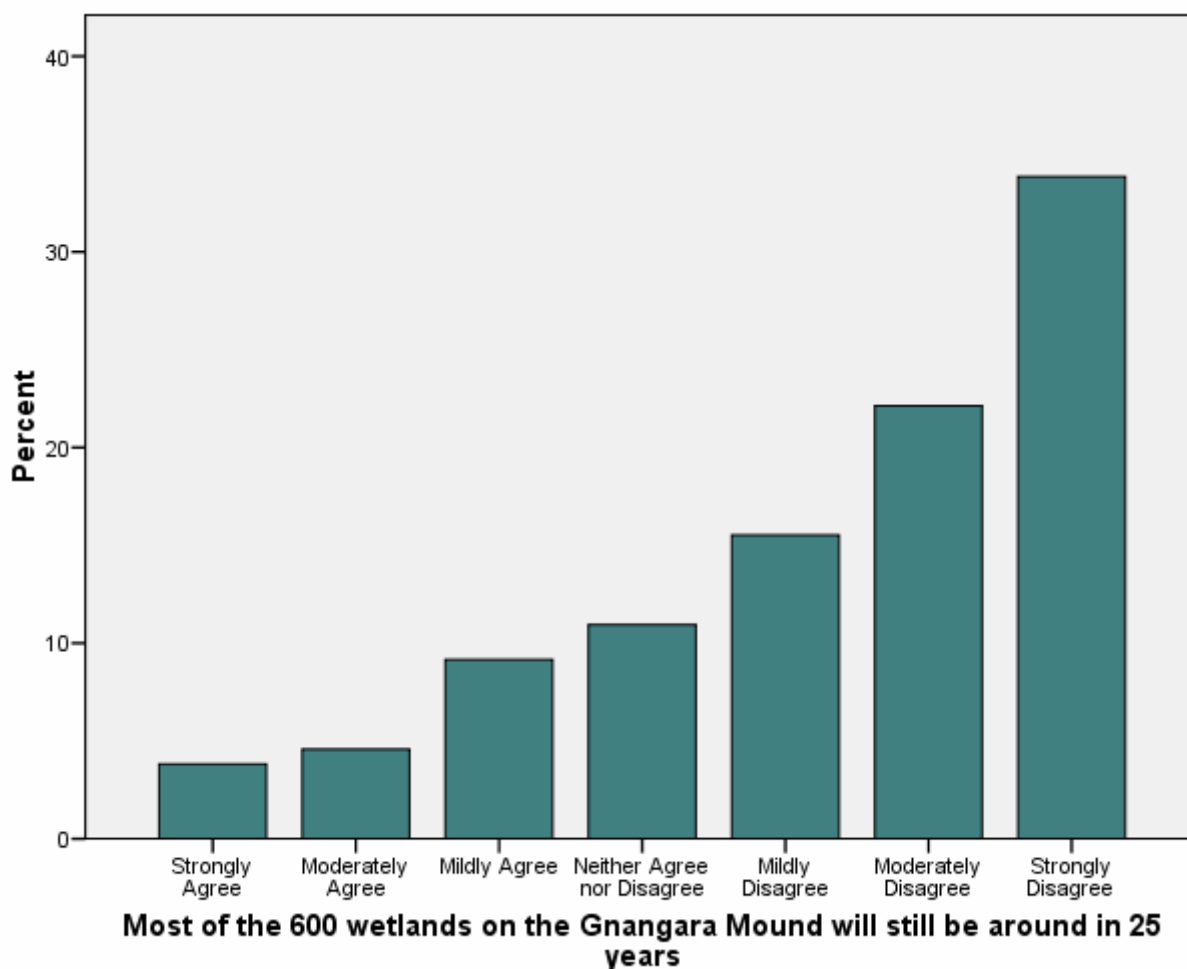
**Qualitative Interpretation:**

A majority (56%) of respondents *Disagreed* [Strongly Disagree (27.0%), Moderately Disagree (17.3%) and Mildly Disagree (15.3%)] that most native mammals of the Perth area are still relatively common today.

### Question C1c

**Most of the 600 wetlands on the Gngangara Mound will still be around in 25 years**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	15	3.7	3.8	3.8
	Moderately Agree	18	4.5	4.6	8.4
	Mildly Agree	36	9.0	9.2	17.6
	Neither Agree nor Disagree	43	10.7	10.9	28.5
	Mildly Disagree	61	15.2	15.5	44.0
	Moderately Disagree	87	21.7	22.1	66.2
	Strongly Disagree	133	33.2	33.8	100.0
	Total	393	98.0	100.0	
Missing	System	8	2.0		
	Total	401	100.0		



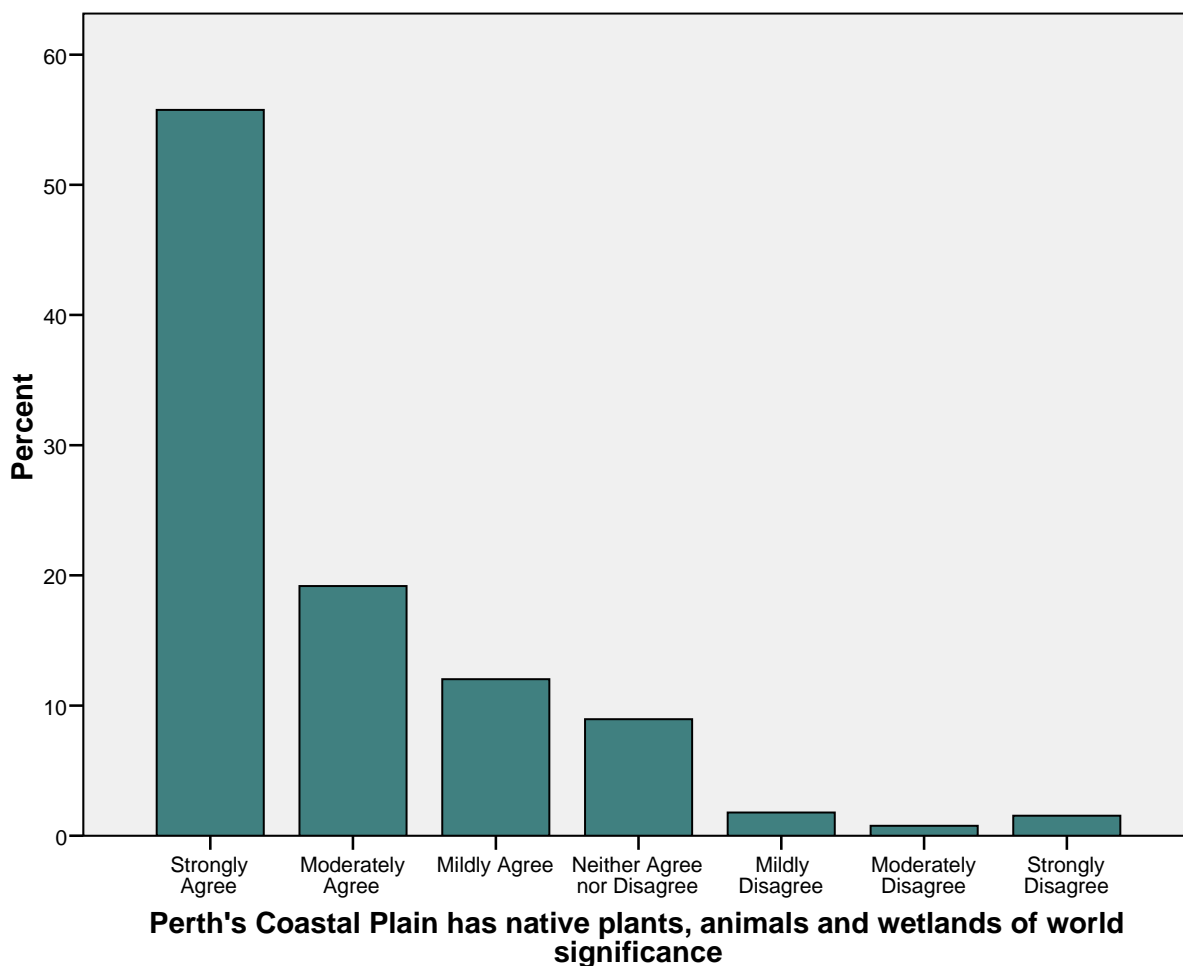
#### Qualitative Interpretation:

A majority (72%) of respondents *Disagreed* [Strongly Disagree (33.8%), Moderately Disagree (22.1%) and Mildly Disagree (15.5%)] that most of the 600 wetlands on the Gngangara Mound will still be around in 25 years.

### Question C1d

**Perth's Coastal Plain has native plants, animals and wetlands of world significance**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	218	54.4	55.8	55.8
	Moderately Agree	75	18.7	19.2	74.9
	Mildly Agree	47	11.7	12.0	87.0
	Neither Agree nor Disagree	35	8.7	9.0	95.9
	Mildly Disagree	7	1.7	1.8	97.7
	Moderately Disagree	3	.7	.8	98.5
	Strongly Disagree	6	1.5	1.5	100.0
	Total	391	97.5	100.0	
Missing	System	10	2.5		
Total		401	100.0		



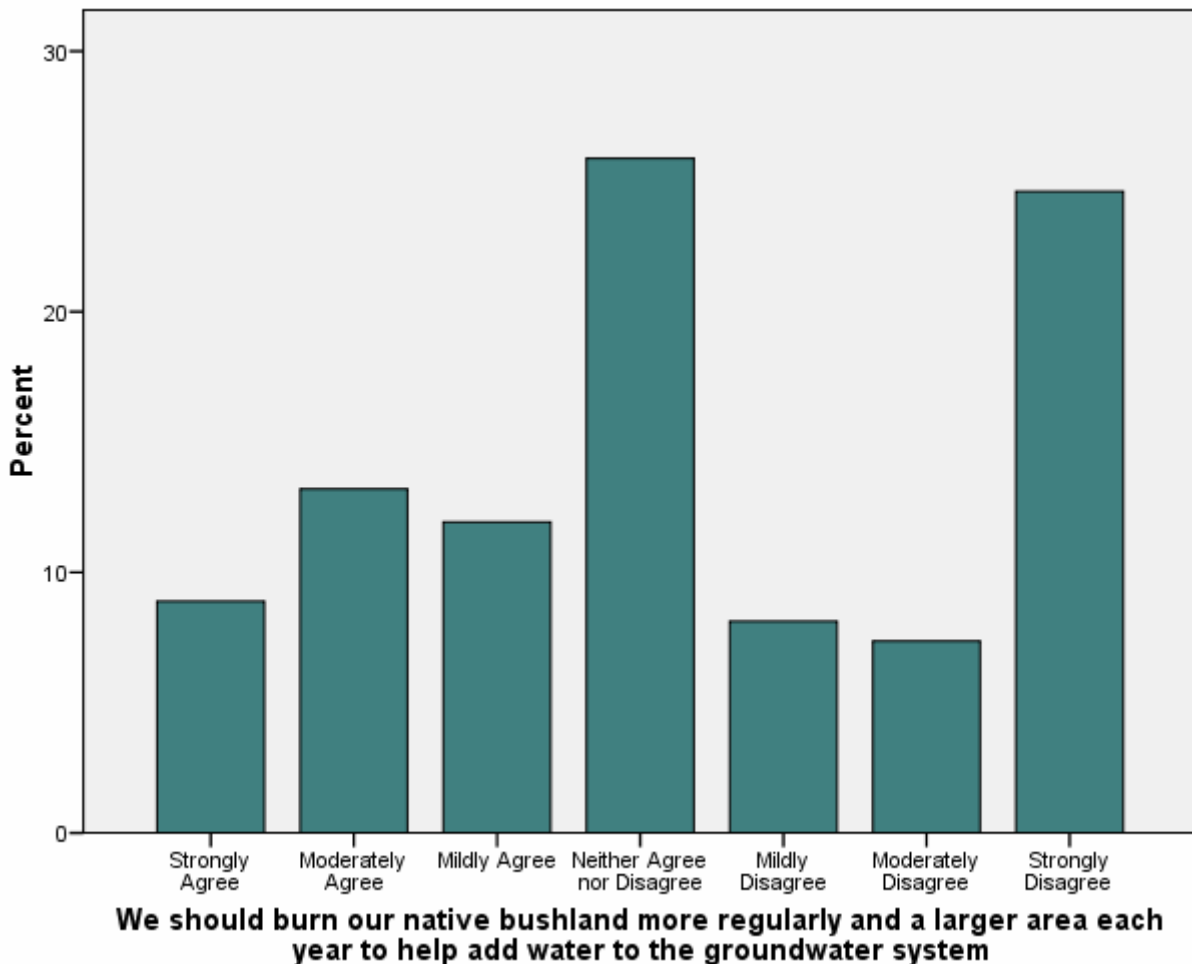
#### Qualitative Interpretation:

Approximately 87% of respondents *Agreed* [Strongly Agree (55.8%), Moderately Agree (19.2%) and Mildly Agree (12.0%)] that Perth's Coastal Plain has native plants, animals and wetlands of world significance.

**Question C1e.**

*We should burn our native bushland more regularly and a larger area each year to help add water to the groundwater system*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	35	8.7	8.9	8.9
	Moderately Agree	52	13.0	13.2	22.1
	Mildly Agree	47	11.7	11.9	34.0
	Neither Agree nor Disagree	102	25.4	25.9	59.9
	Mildly Disagree	32	8.0	8.1	68.0
	Moderately Disagree	29	7.2	7.4	75.4
	Strongly Disagree	97	24.2	24.6	100.0
Total		394	98.3	100.0	
Missing	System	7	1.7		
Total		401	100.0		



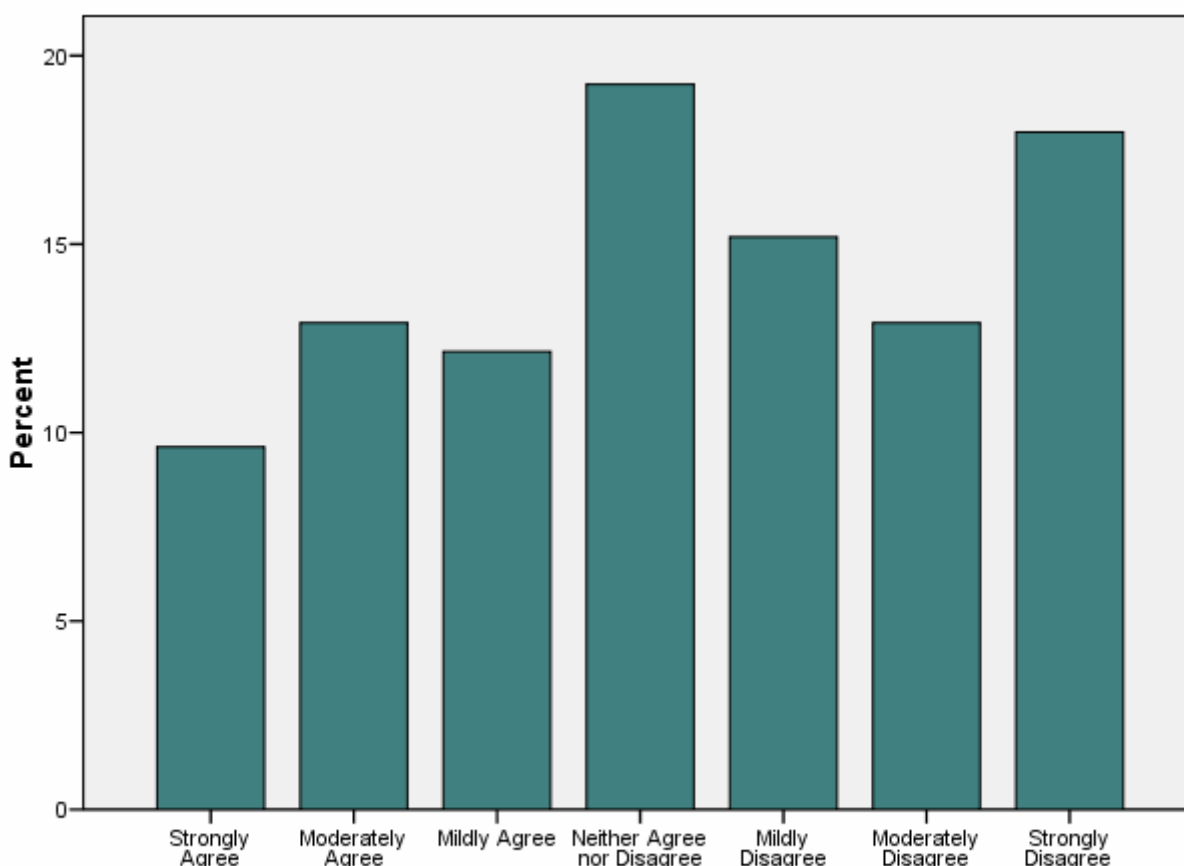
**Qualitative Interpretation:**

Approximately 26% of respondents (25.9%, n=71) *Neither Agreed nor Disagreed* that we should burn our native bushland more regularly and a larger area each year to help add water to the groundwater system. Responses were spread almost evenly across the *Agreement* subscale [ie Strongly Agree (8.9%), Moderately Agreed (13.2%) and Mildly Agreed (11.9%); Total Agreement = 34.0%] and the *Disagreement* subscale [ie Strongly Disagree (24.6%), Moderately Disagree (7.4%), and Mildly Disagree (8.1%); Total Disagreement = 32.0%] indicating that burning native bushland has divided support.

**Question C1f.**

*From funding available, preference should be given to protecting individual threatened species and plants and not to protecting larger areas of native bushland*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	38	9.5	9.6	9.6
	Moderately Agree	51	12.7	12.9	22.5
	Mildly Agree	48	12.0	12.2	34.7
	Neither Agree nor Disagree	76	19.0	19.2	53.9
	Mildly Disagree	60	15.0	15.2	69.1
	Moderately Disagree	51	12.7	12.9	82.0
	Strongly Disagree	71	17.7	18.0	100.0
	Total	395	98.5	100.0	
Missing	System	6	1.5		
Total		401	100.0		



**From funding available, preference should be given to protecting individual threatened species and plants and not to protecting larger areas of native bushland**

**Qualitative Interpretation:**

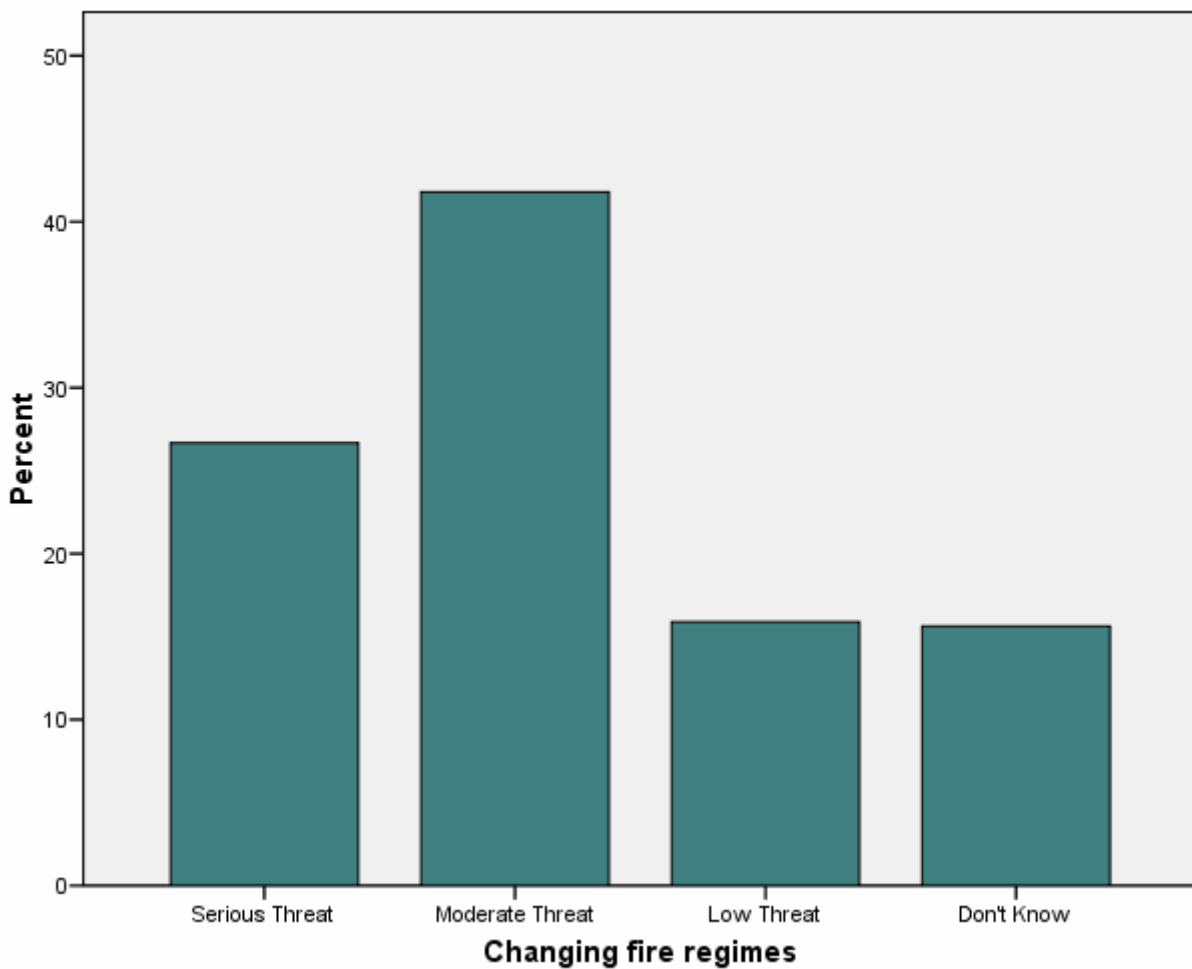
Approximately 19% of respondents (19.2%, n=76) *Neither Agreed nor Disagreed* that from funding available, preference should be given to protecting individual threatened species and plants and not to protecting larger areas of native bushland. Responses were spread evenly across the *Agreement* subscale [ie Strongly Agree (9.6%), Moderately Agree (12.9%) and Mildly Agree (12.2%); Total Agreement = 34.7%] and the *Disagreement* subscale [ie Strongly Disagree (18.0%), Moderately Disagree (12.9%), and Mildly Disagree (15.2%); Total Disagreement = 30.9%] indicating funding preferences have divided support.

**Question C2a.**

*Please indicate how serious a threat to Perth's biodiversity you think the following is:*

**Changing fire regimes**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serious Threat	104	25.9	26.7	26.7
	Moderate Threat	163	40.6	41.8	68.5
	Low Threat	62	15.5	15.9	84.4
	Don't Know	61	15.2	15.6	100.0
	Total	390	97.3	100.0	
Missing	System	11	2.7		
Total		401	100.0		



**Qualitative Interpretation:**

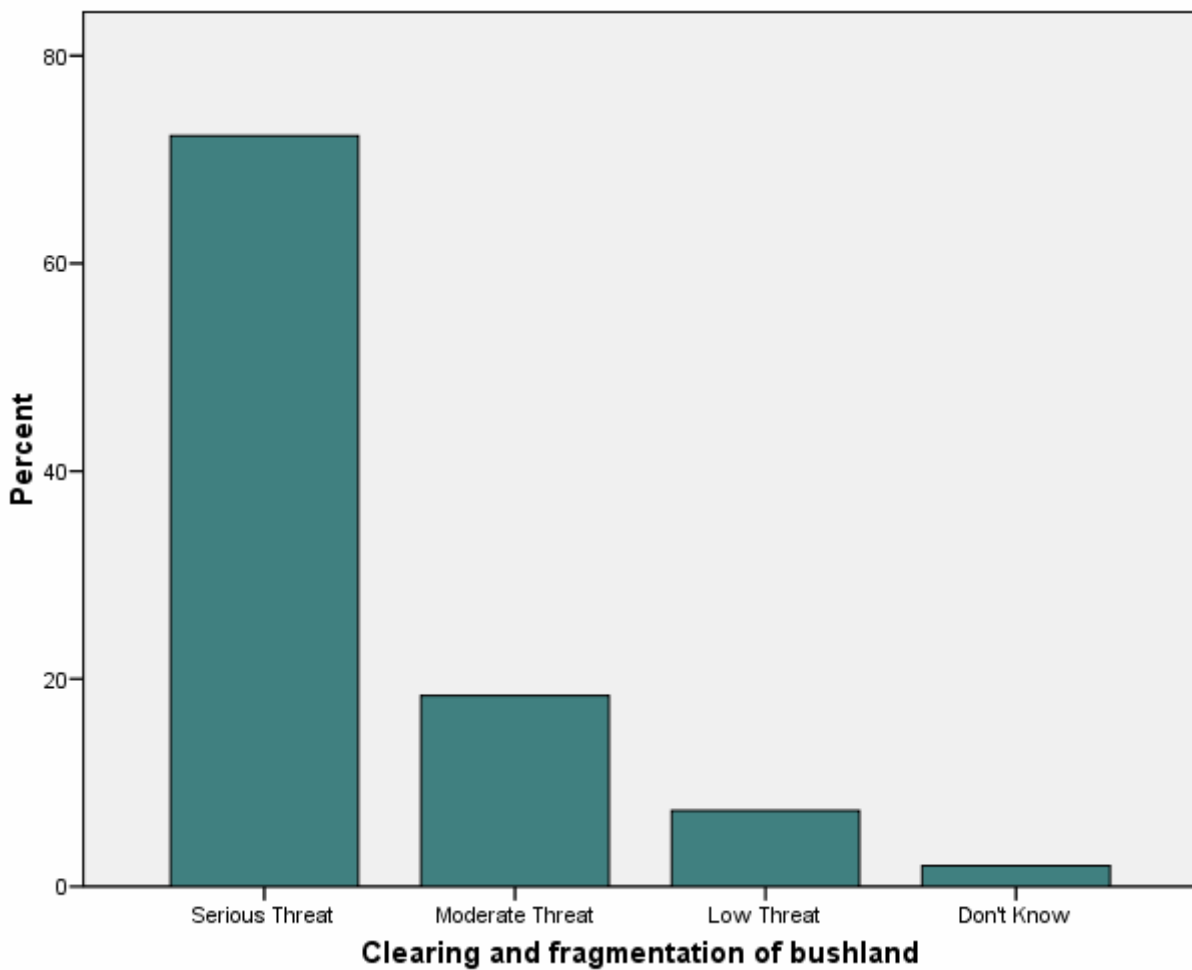
Approximately 68% of respondents (68.5%, n=267) indicated changing fire regimes posed a *Severe* or *Moderate Threat* to Perth's biodiversity.

**Question C2b.**

Please indicate how serious a threat to Perth's biodiversity you think the following is:

**Clearing and fragmentation of bushland**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serious Threat	287	71.6	72.3	72.3
	Moderate Threat	73	18.2	18.4	90.7
	Low Threat	29	7.2	7.3	98.0
	Don't Know	8	2.0	2.0	100.0
Total		397	99.0	100.0	
Missing	System	4	1.0		
Total		401	100.0		



**Qualitative Interpretation:**

Approximately 72% of respondents (72.3%, n=287) indicated clearing and fragmentation of bushland posed a *Serious Threat* to Perth's biodiversity.

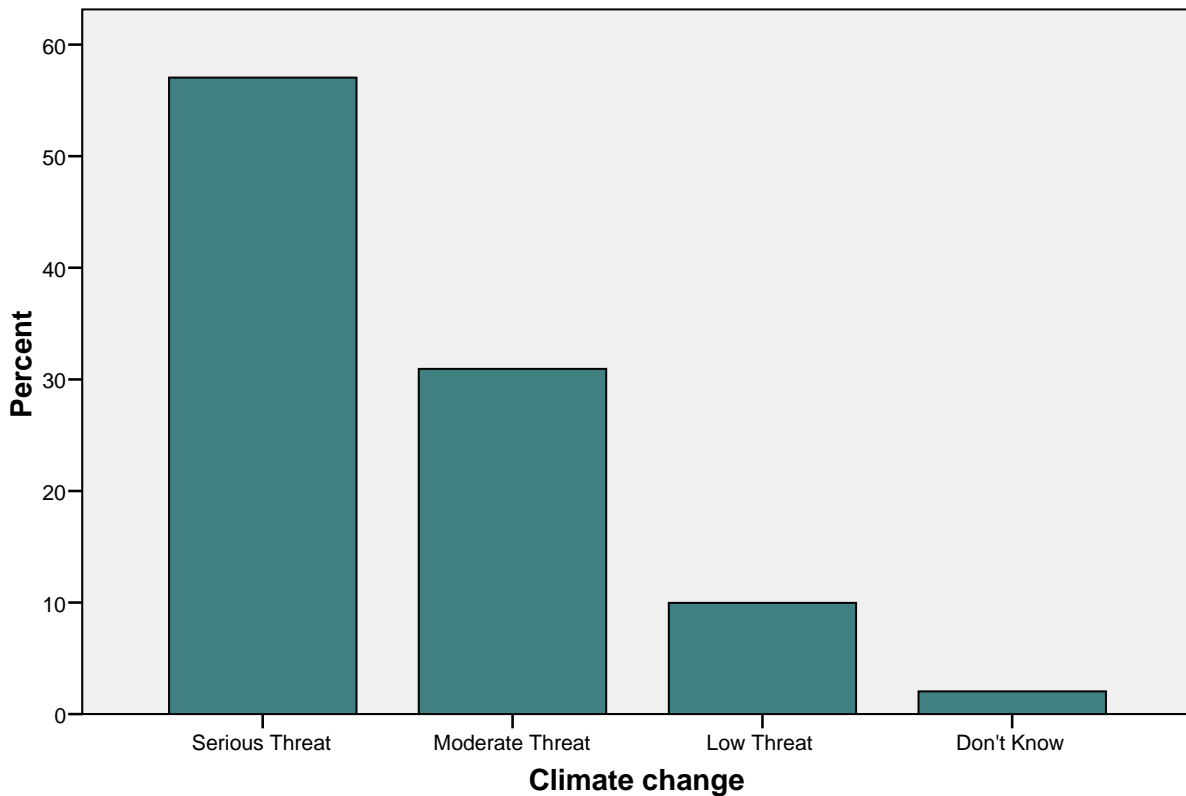
**Question C2c.**

Please indicate how serious a threat to Perth's biodiversity you think the following is:

**Climate change**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serious Threat	223	55.6	57.0	57.0
	Moderate Threat	121	30.2	30.9	88.0
	Low Threat	39	9.7	10.0	98.0
	Don't Know	8	2.0	2.0	100.0
	Total	391	97.5	100.0	
Missing	System	10	2.5		
Total		401	100.0		

**Climate change**



**Qualitative Interpretation:**

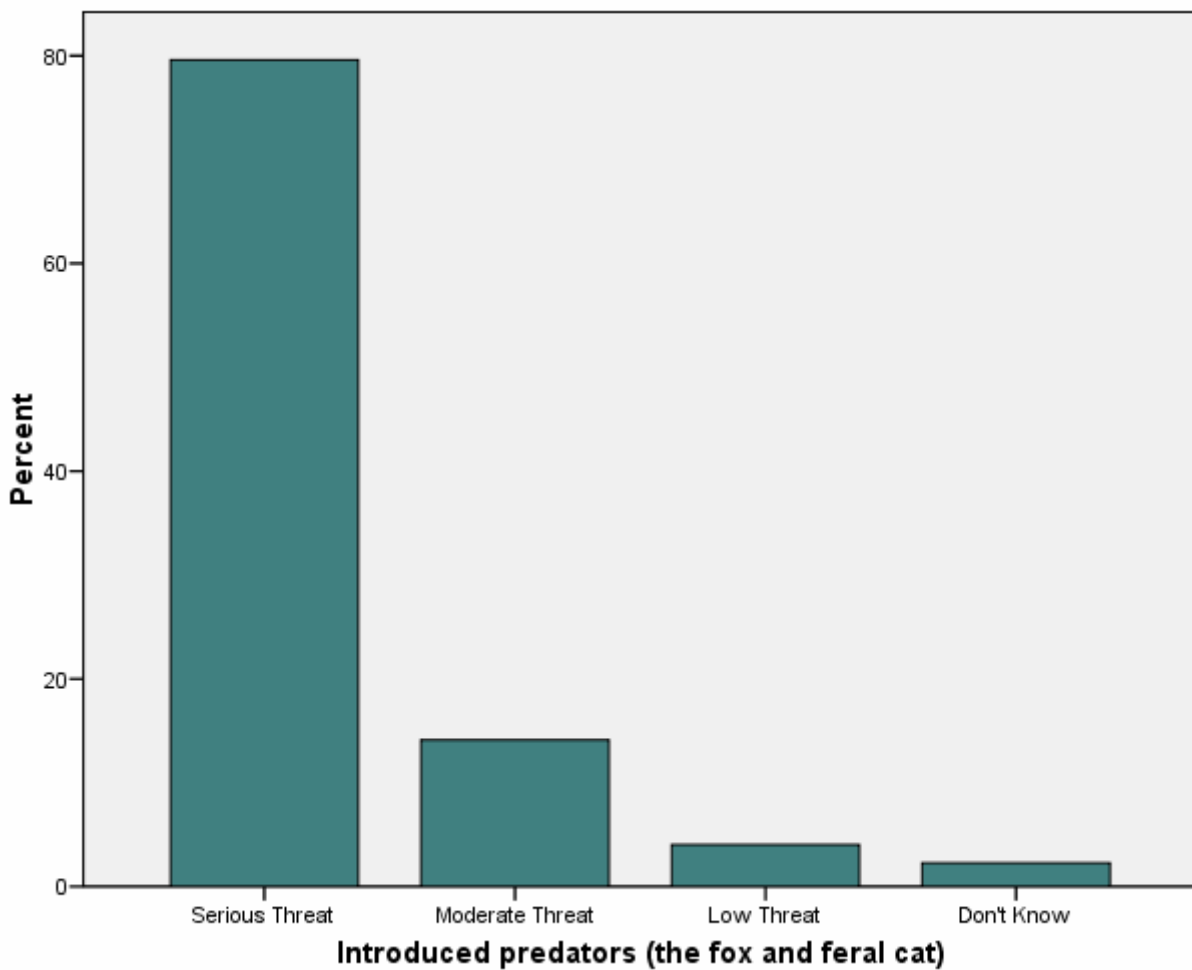
Exactly 57% of respondents (57.0%, n=223) indicated climate change posed a *Serious Threat* to Perth's biodiversity.

**Question C2d.**

Please indicate how serious a threat to Perth's biodiversity you think the following is:

**Introduced predators (the fox and feral cat)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serious Threat	316	78.8	79.6	79.6
	Moderate Threat	56	14.0	14.1	93.7
	Low Threat	16	4.0	4.0	97.7
	Don't Know	9	2.2	2.3	100.0
	Total	397	99.0	100.0	
Missing	System	4	1.0		
Total		401	100.0		



**Qualitative Interpretation:**

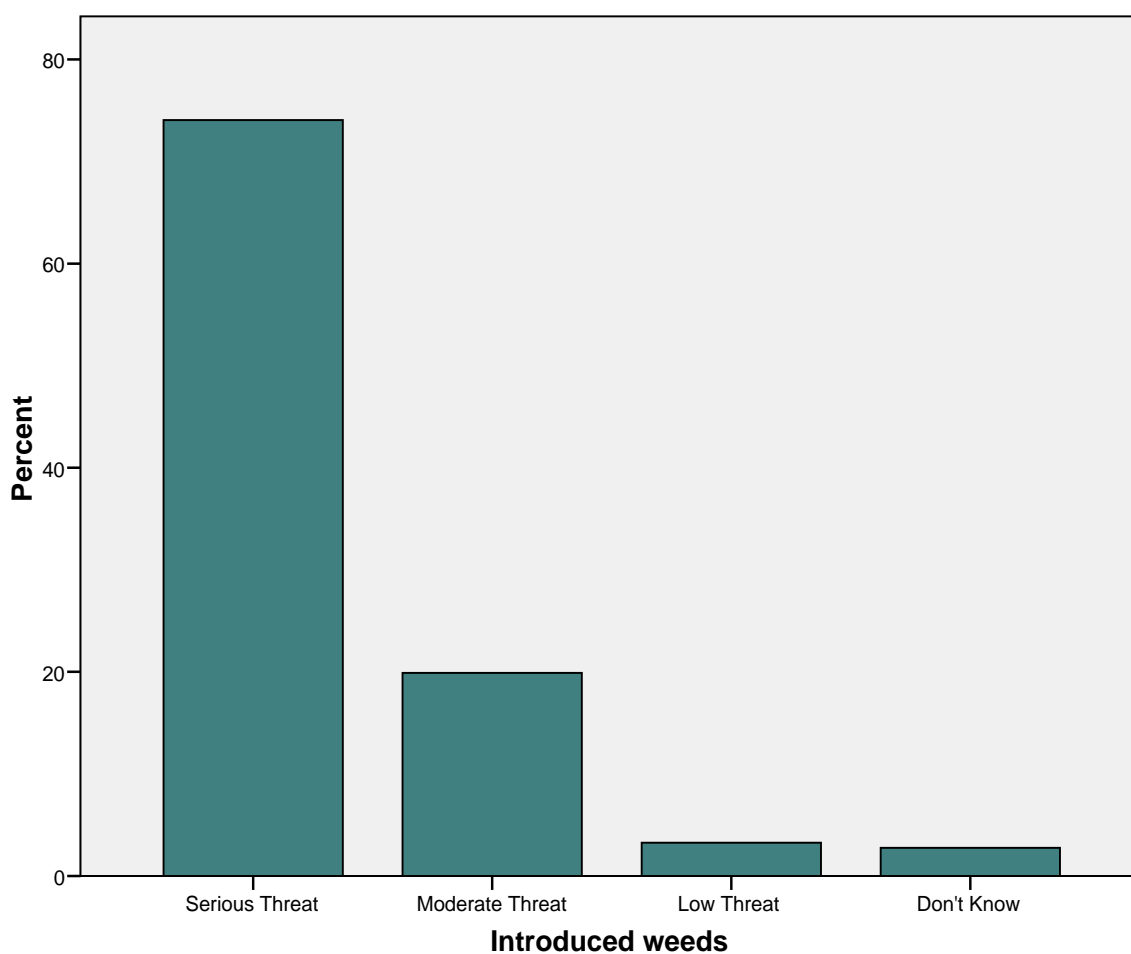
Approximately 80% of respondents (79.6%, n=316) indicated introduced predators (the fox and feral cat) posed a *Serious Threat* to Perth's biodiversity.

**Question C2e.**

*Please indicate how serious a threat to Perth's biodiversity you think the following is:*

**Introduced weeds**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serious Threat	294	73.3	74.1	74.1
	Moderate Threat	79	19.7	19.9	94.0
	Low Threat	13	3.2	3.3	97.2
	Don't Know	11	2.7	2.8	100.0
	Total	397	99.0	100.0	
Missing	System	4	1.0		
	Total	401	100.0		



**Qualitative Interpretation:**

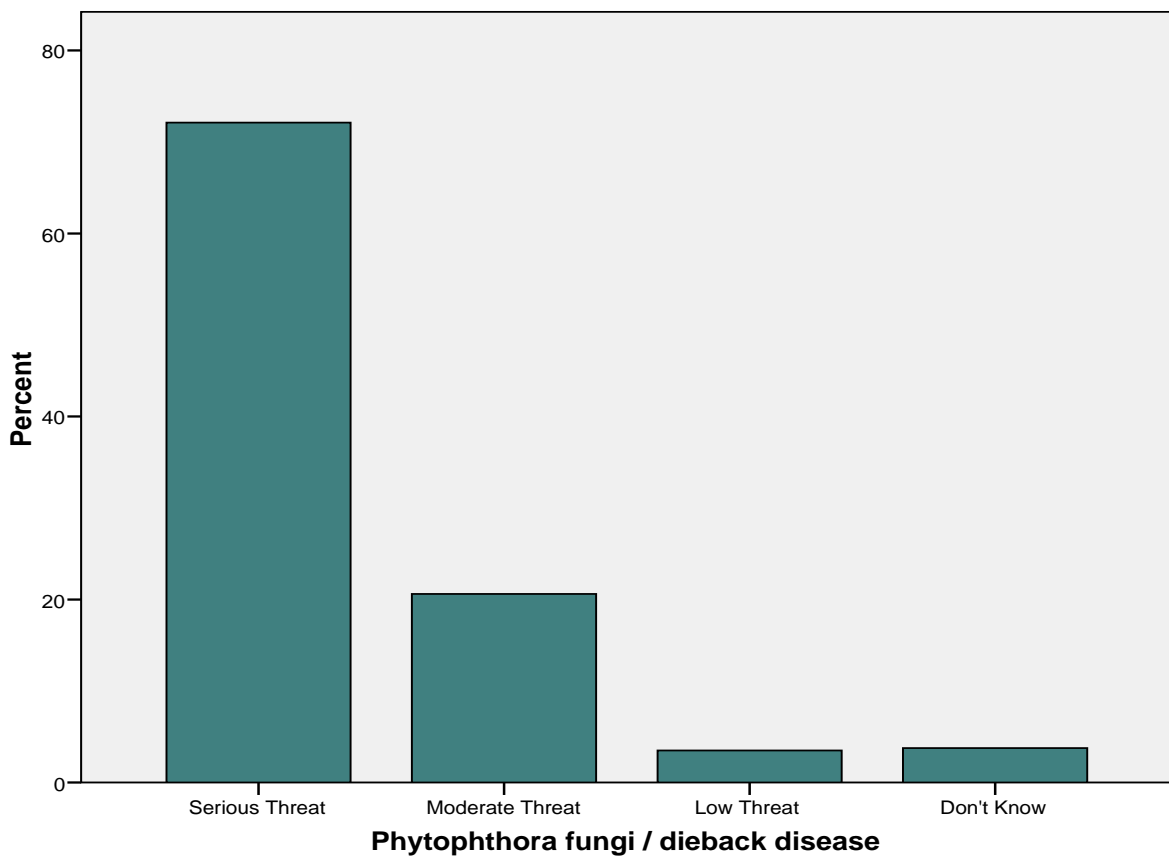
Approximately 74% of respondents (74.1%, n=294) indicated introduced weeds posed a *Serious Threat* to Perth's biodiversity.

**Question C2f.**

Please indicate how serious a threat to Perth's biodiversity you think the following is:

**Phytophthora fungi / dieback disease**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Serious Threat	287	71.6	72.1	72.1
	Moderate Threat	82	20.4	20.6	92.7
	Low Threat	14	3.5	3.5	96.2
	Don't Know	15	3.7	3.8	100.0
	Total	398	99.3	100.0	
Missing	System	3	.7		
Total		401	100.0		



**Qualitative Interpretation:**

Approximately 72% of respondents (72.1%, n=287) indicated Phytophthora fungi/dieback disease posed a *Serious Threat* to Perth's biodiversity.

### Question C3.

:

Respondents were asked to “**Please provide any comments you would like to make regarding biodiversity**”.

The most common themes in decreasing frequency were:

- **General Support for Sustaining Biodiversity** (n=16 comments) e.g. “If we don't be careful what we do we are going to stuff it all up”.
- **Support for our Native Plants and Animals** (n=8 comments) e.g. “Feral cats and foxes should attract a bounty but only if bounty paid to community organisations from funding to be reimbursed into community facilities”.
- **Burning Native Vegetation** (n=5 comments) e.g. “Burning has been thought to benefit native vegetation, however if it is too frequent it does not permit local vegetation to recover between burns”.

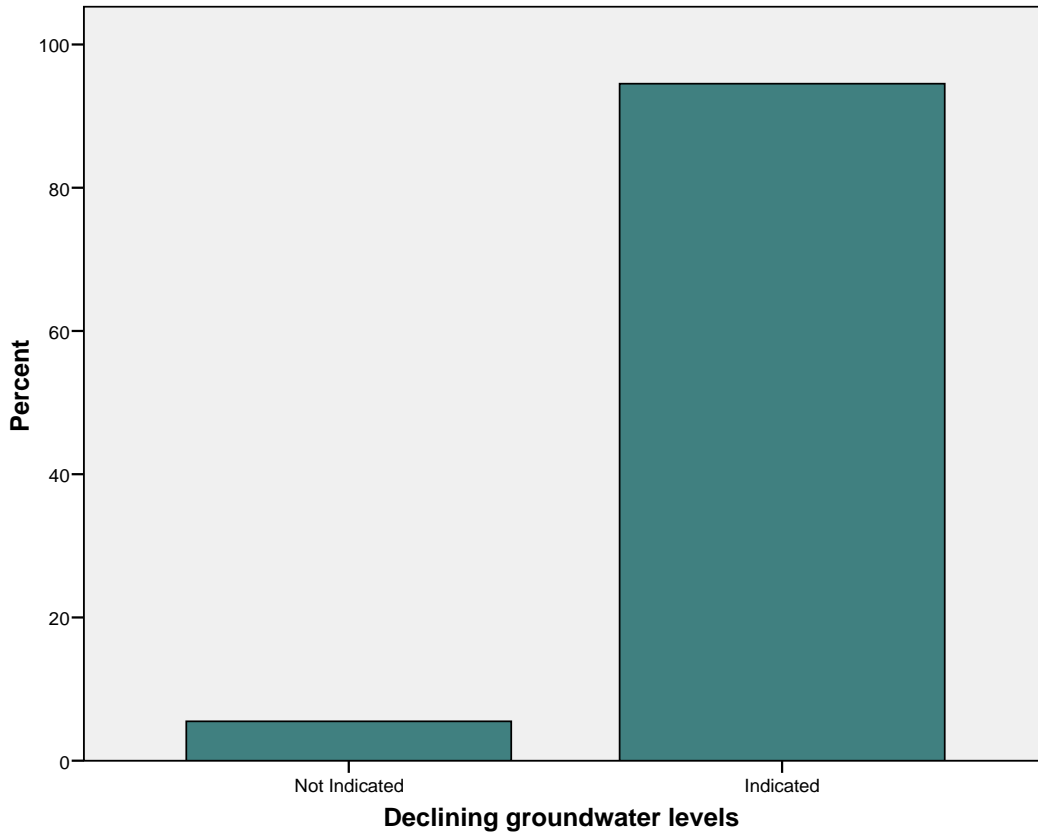
**PART D: PRIOR AWARENESS ABOUT THE GNANGARA GROUNDWATER SYSTEM**

**Question D1.**

Before you completed this survey, which of the following were you already aware of?

*Declining groundwater levels*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	22	5.5	5.5	5.5
	Indicated	379	94.5	94.5	100.0
Total		401	100.0	100.0	

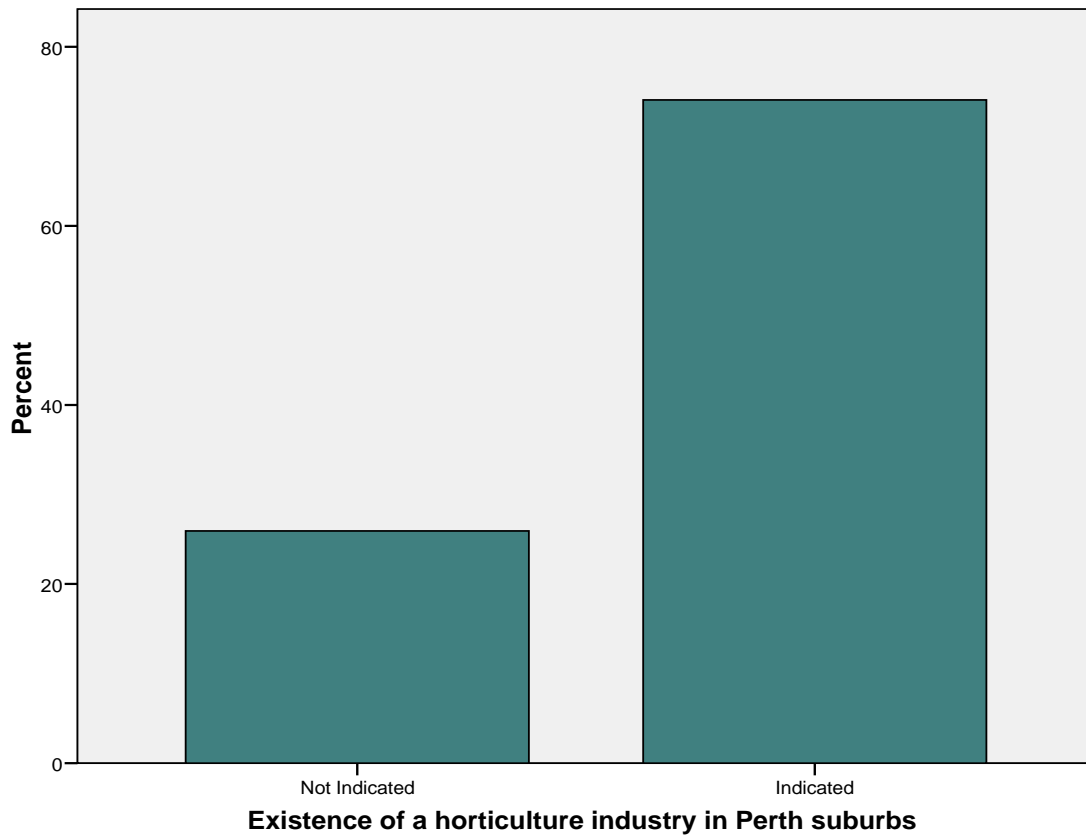


**Qualitative Interpretation:**

Approximately 94% of respondents (94.5%, n=244) indicated that before completing this survey they were already aware of declining groundwater levels.

**Existence of a horticulture industry in Perth suburbs**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	104	25.9	25.9	25.9
	Indicated	297	74.1	74.1	100.0
	Total	401	100.0	100.0	

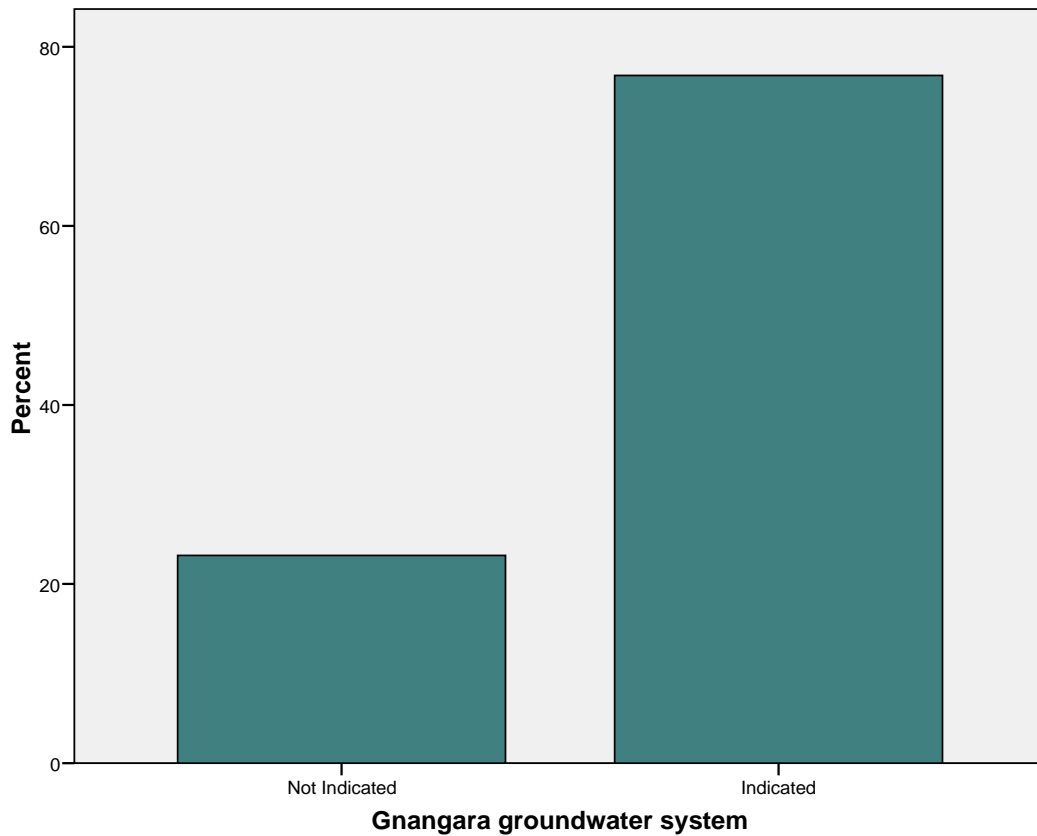


**Qualitative Interpretation:**

Approximately 74% of respondents (74.1%, n=297) indicated that before completing this survey they were already aware of the existence of a horticulture industry in Perth suburbs.

**Gngangara groundwater system**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	93	23.2	23.2	23.2
	Indicated	308	76.8	76.8	100.0
	Total	401	100.0	100.0	

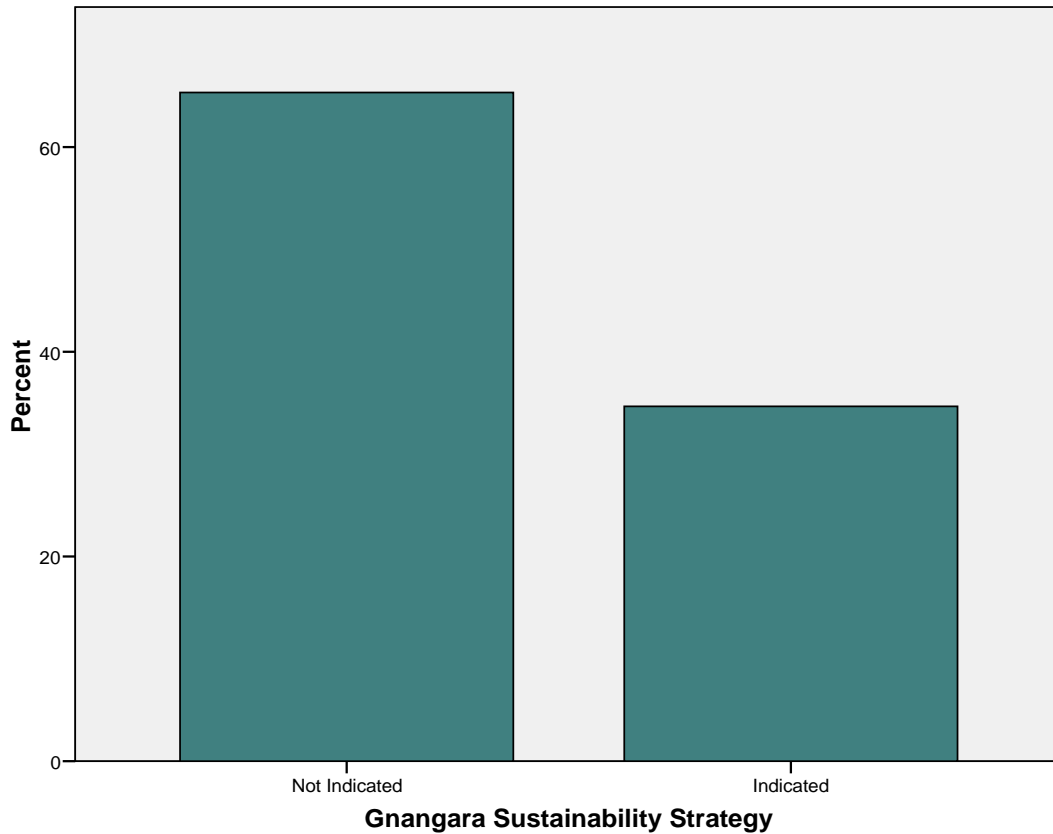


**Qualitative Interpretation:**

Approximately 77% of respondents (76.8, n=308) indicated that before completing this survey they were already aware of the Gngangara groundwater system.

**Gnangara Sustainability Strategy**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	262	65.3	65.3	65.3
	Indicated	139	34.7	34.7	100.0
	Total	401	100.0	100.0	

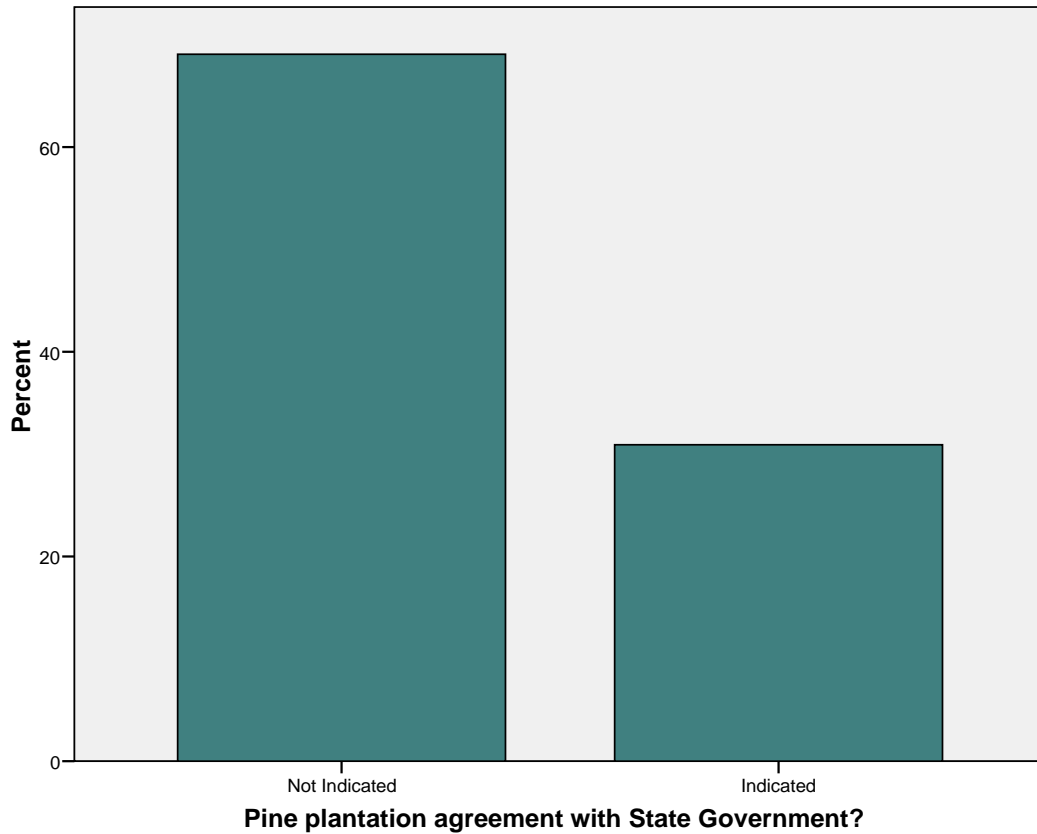


**Qualitative Interpretation:**

Approximately 65% of respondents (65.3%, n=262) indicated that before completing this survey they were not aware of the Gnangara Sustainability Strategy.

**Pine plantation agreement with State Government?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	277	69.1	69.1	69.1
	Indicated	124	30.9	30.9	100.0
	Total	401	100.0	100.0	

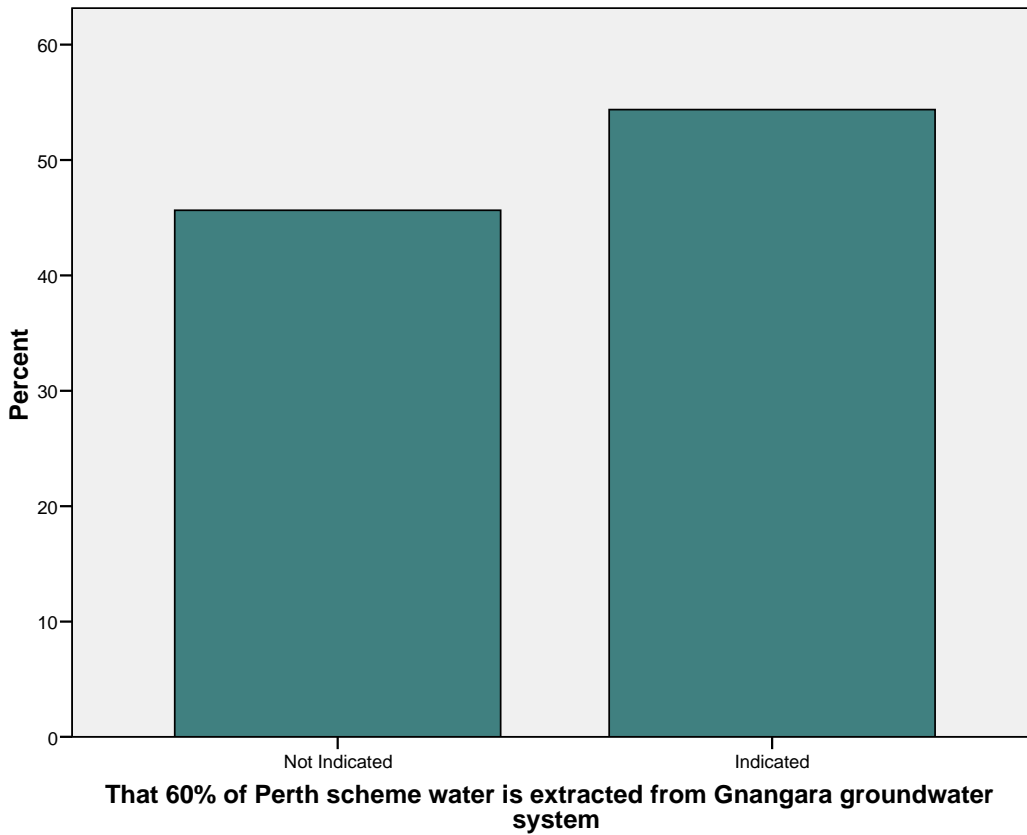


**Qualitative Interpretation:**

Approximately 69% of respondents (69.1%, n=277) indicated that before completing this survey they were not aware of the pine plantation agreement with the State Government.

***That 60% of Perth scheme water is extracted from Gnangara groundwater system***

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	183	45.6	45.6	45.6
	Indicated	218	54.4	54.4	100.0
	Total	401	100.0	100.0	

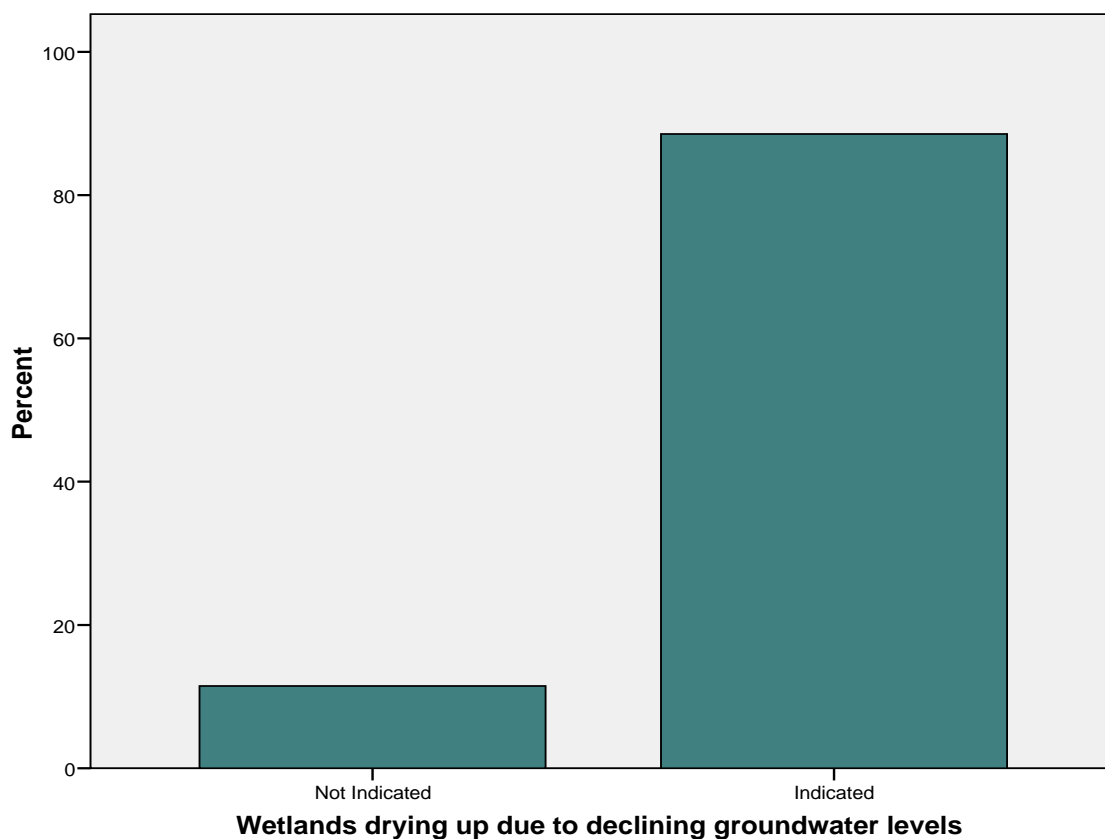


**Qualitative Interpretation:**

Approximately 54% of respondents (54.4%, n=218) indicated that before completing this survey they were aware that 60% of Perth scheme water is extracted from Gnangara groundwater system.

**Wetlands drying up due to declining groundwater levels**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	46	11.5	11.5	11.5
	Indicated	355	88.5	88.5	100.0
	Total	401	100.0	100.0	



**Qualitative Interpretation:**

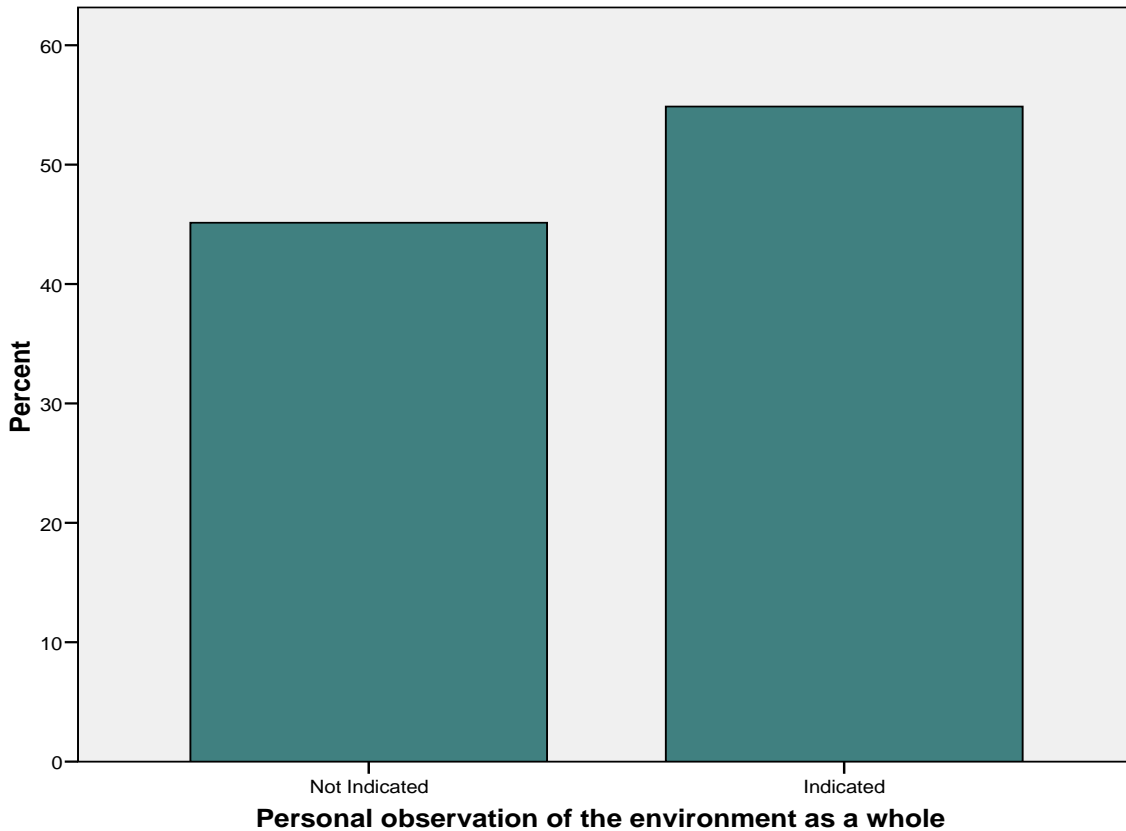
Approximately 88% of respondents (88.5%, n=355) indicated that before completing this survey they were already aware of wetlands drying up due to declining groundwater levels.

**Question D2.**

If you were already aware of any of the above before you completed this survey, please indicate where you gained the information?

**Personal observation of the environment as a whole**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	181	45.1	45.1	45.1
	Indicated	220	54.9	54.9	100.0
	Total	401	100.0	100.0	

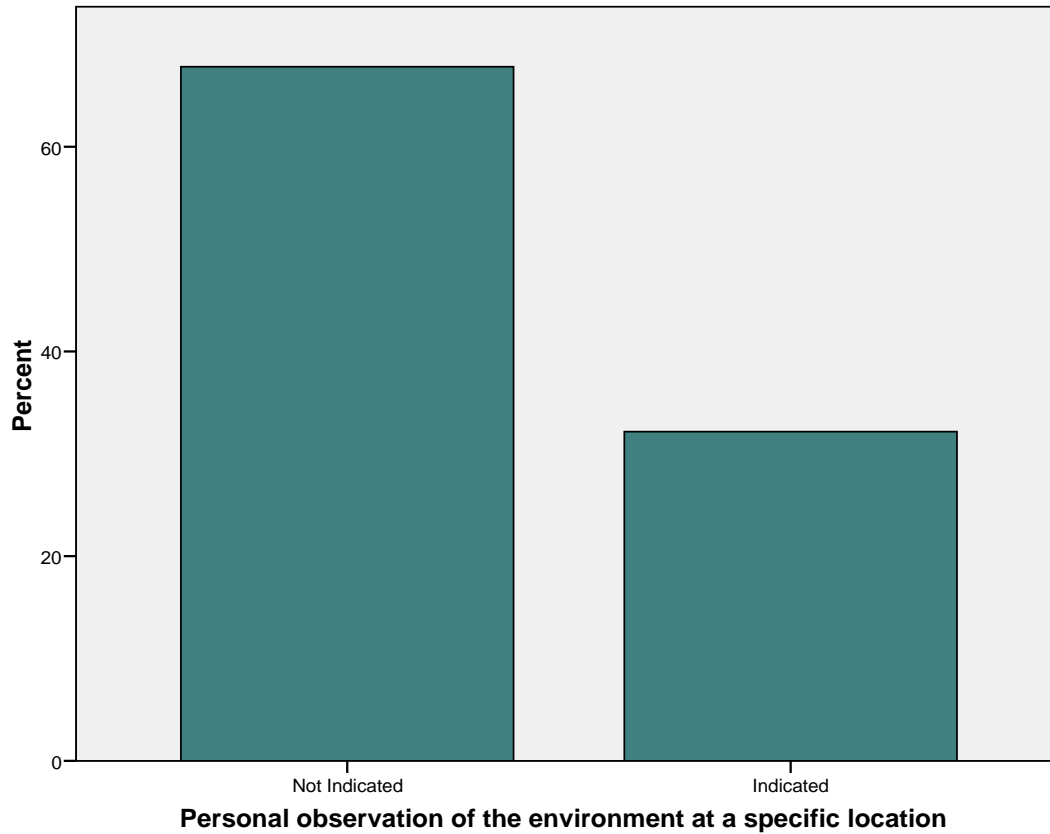


**Qualitative Interpretation:**

Approximately 55% of respondents (54.9%, n=220) indicated that before completing this survey they gained the information cited in Question D1 via personal observation of the environment as a whole.

**Personal observation of the environment at a specific location**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	272	67.8	67.8	67.8
	Indicated	129	32.2	32.2	100.0
	Total	401	100.0	100.0	

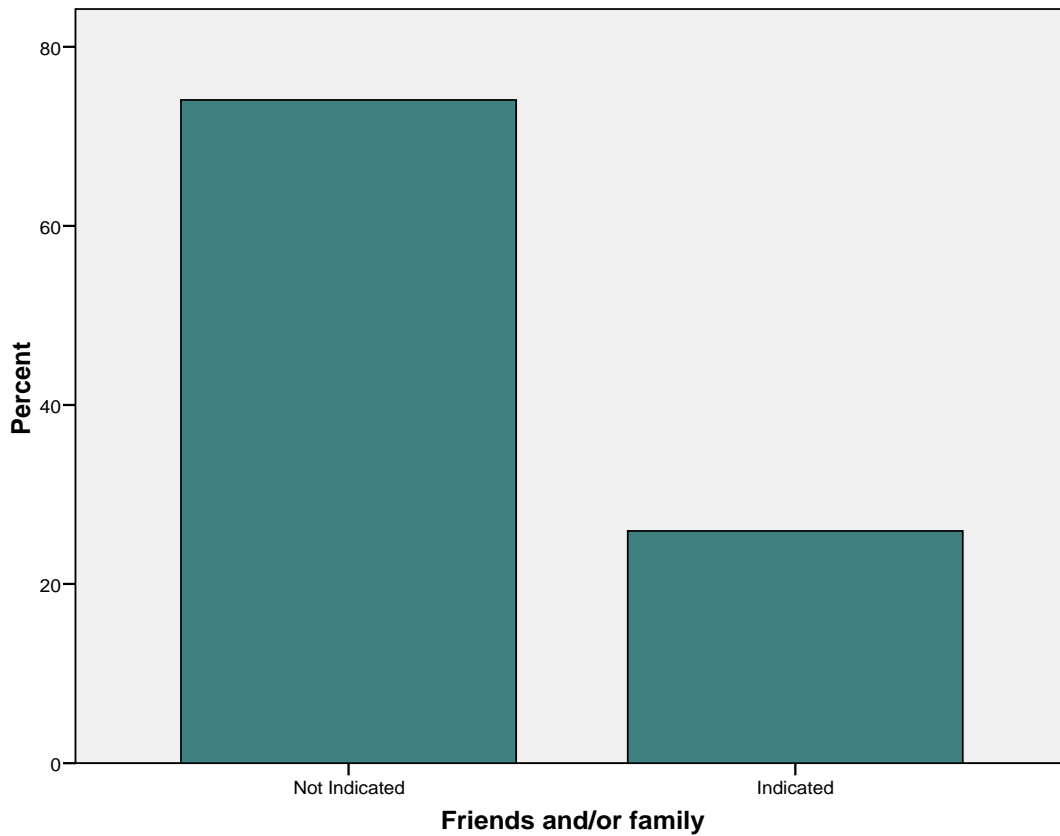


**Qualitative Interpretation:**

Approximately 32% of respondents (32.2%, n=129) indicated that before completing this survey they gained the information cited in Question D1 via personal observation of the environment at a specific location.

*Friends and/or family*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	297	74.1	74.1	74.1
	Indicated	104	25.9	25.9	100.0
	Total	401	100.0	100.0	

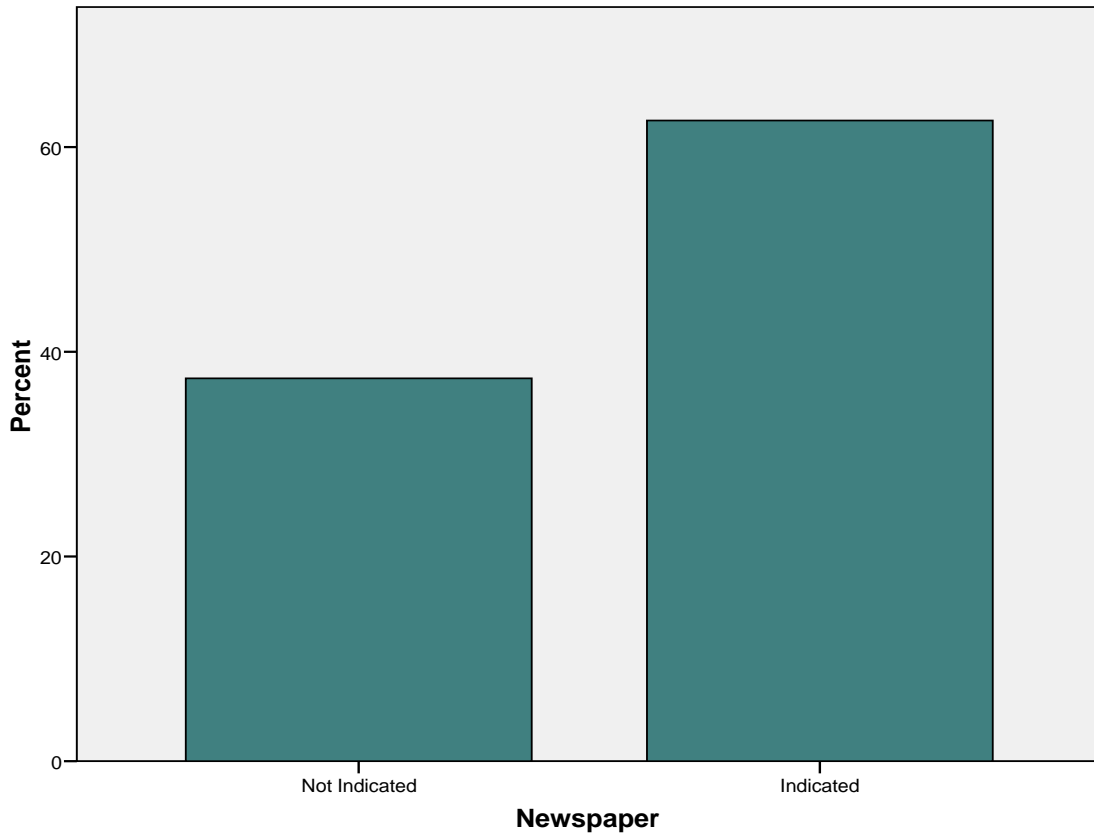


**Qualitative Interpretation:**

Approximately one-quarter of respondents (25.9%, n=104) indicated that before completing this survey they gained the information cited in Question D1 via friends and/or family.

**Newspaper**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	150	37.4	37.4	37.4
	Indicated	251	62.6	62.6	100.0
	Total	401	100.0	100.0	

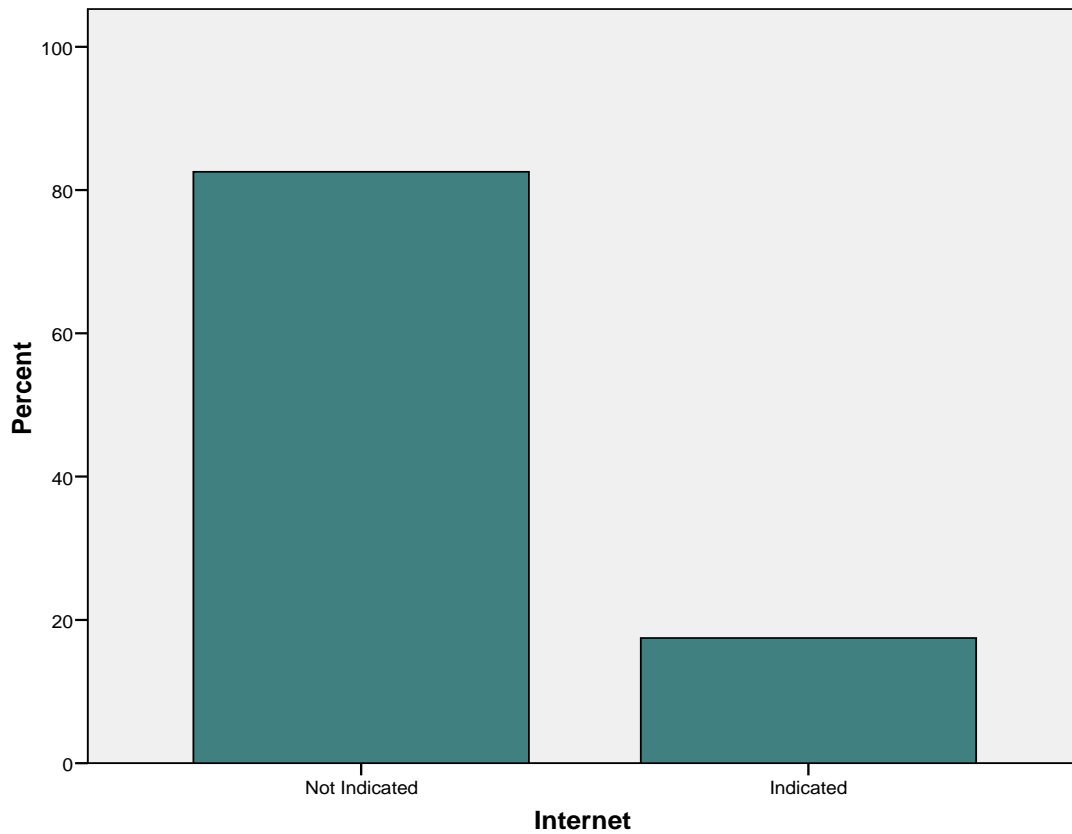


**Qualitative Interpretation:**

Approximately 63% of respondents (62.6%, n=251) indicated that before completing this survey they gained the information cited in Question D1 via the newspaper.

**Internet**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	331	82.5	82.5	82.5
	Indicated	70	17.5	17.5	100.0
Total		401	100.0	100.0	

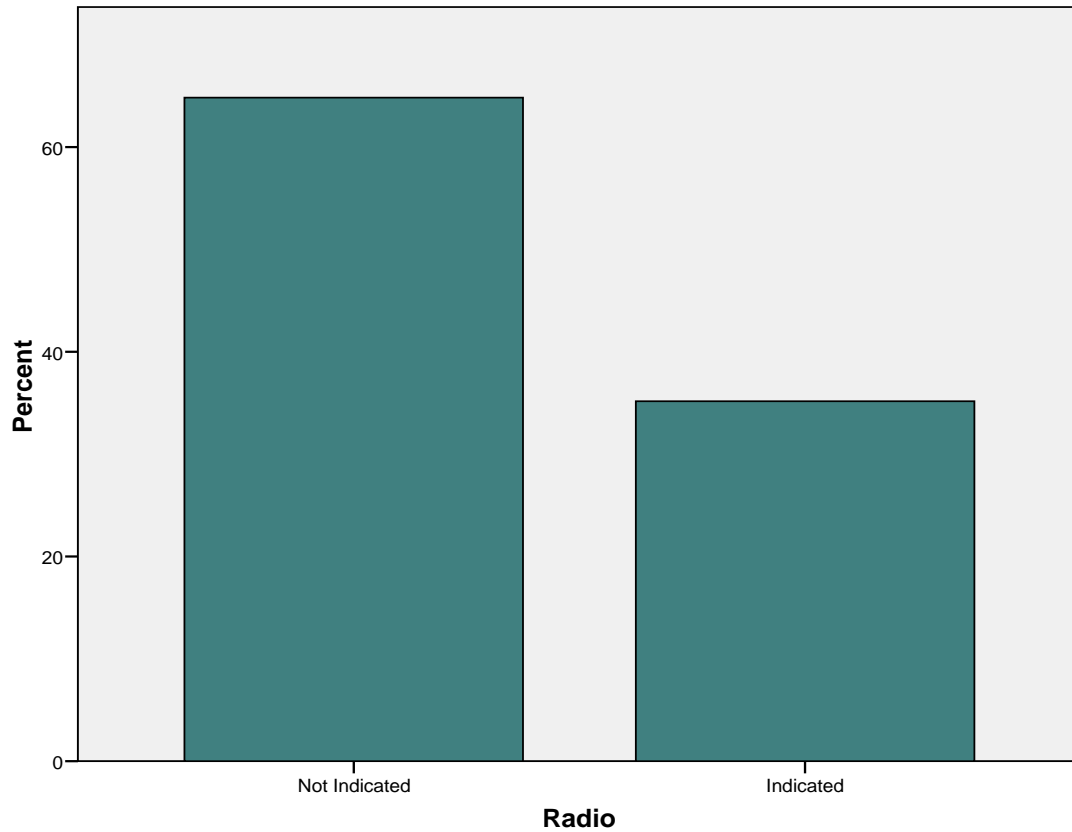


**Qualitative Interpretation:**

Approximately 18% of respondents (17.5%, n=70) indicated that before completing this survey they gained the information cited in Question D1 via the internet.

**Radio**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	260	64.8	64.8	64.8
	Indicated	141	35.2	35.2	100.0
	Total	401	100.0	100.0	

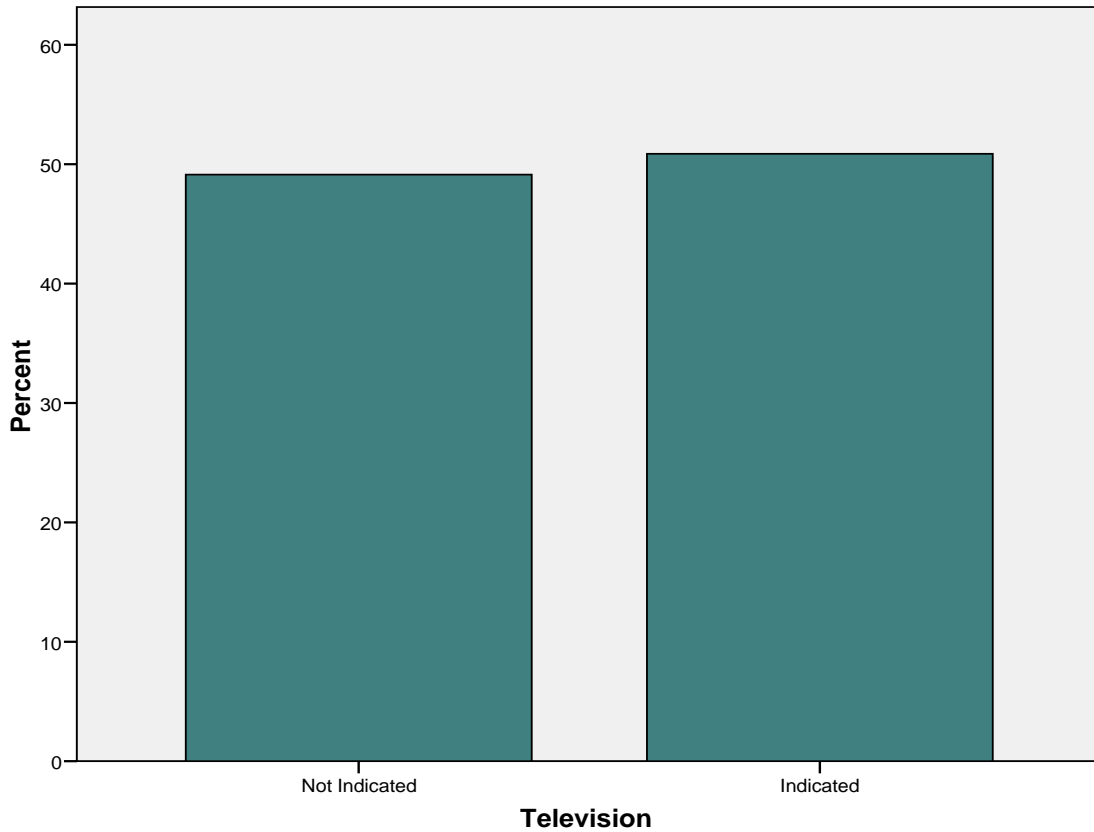


**Qualitative Interpretation:**

Approximately 35% of respondents (35.2%, n=141) indicated that before completing this survey they gained the information cited in Question D1 via the radio.

**Television**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	197	49.1	49.1	49.1
	Indicated	204	50.9	50.9	100.0
Total		401	100.0	100.0	

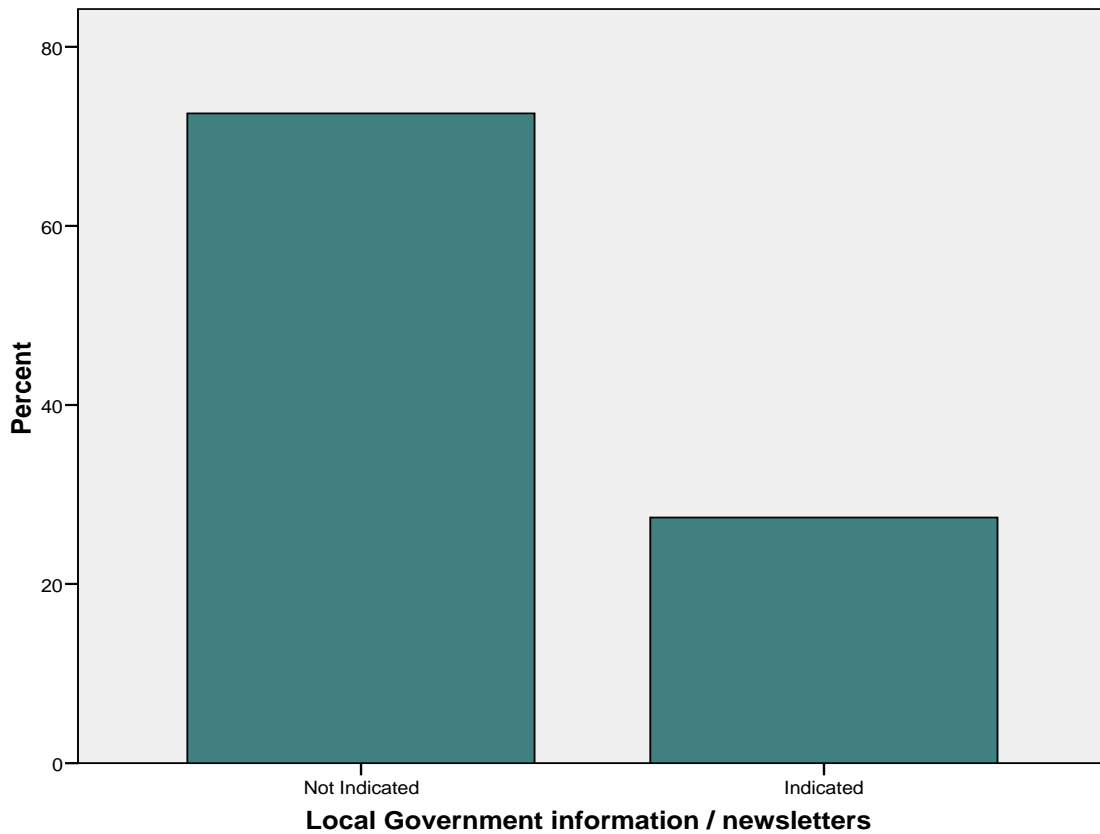


**Qualitative Interpretation:**

Approximately 51% of respondents (50.9%, n=204) indicated that before completing this survey they gained the information cited in Question D1 via television.

**Local Government information / newsletters**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	291	72.6	72.6	72.6
	Indicated	110	27.4	27.4	100.0
	Total	401	100.0	100.0	

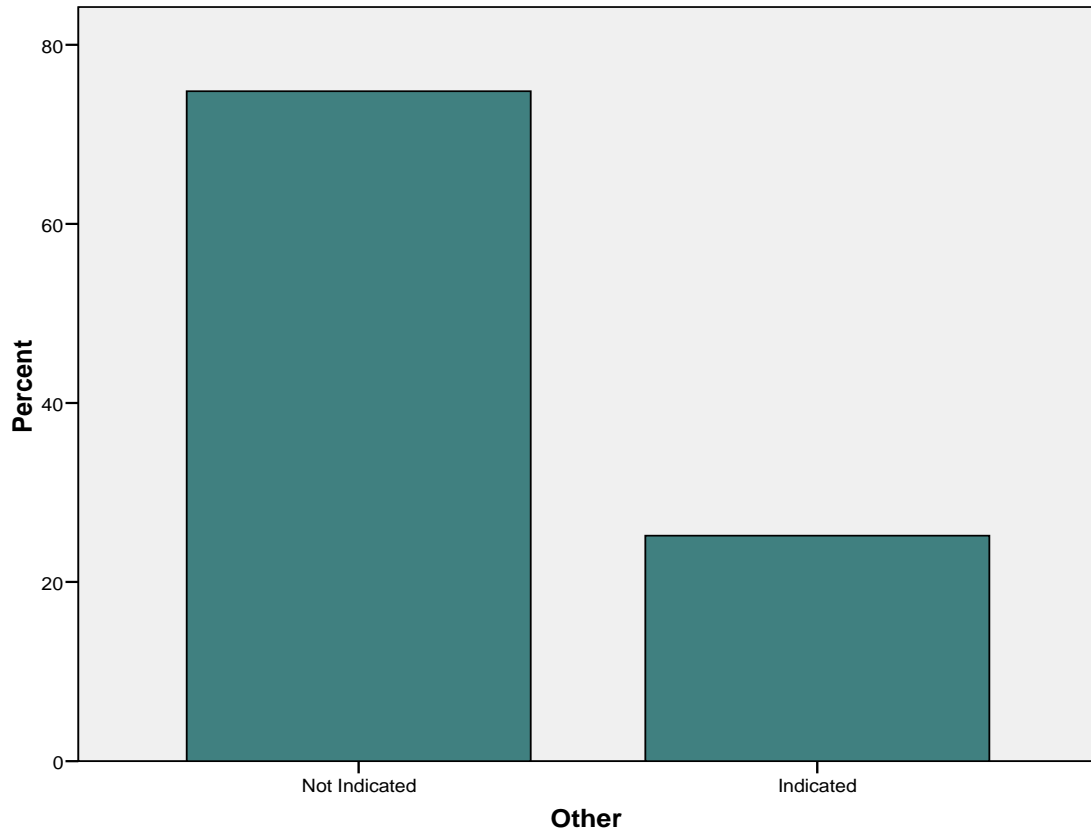


**Qualitative Interpretation:**

Just over one-quarter of respondents (27.4%, n=110) indicated that before completing this survey they gained the information cited in Question D1 via Local Government information/newsletters.

**Other**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Indicated	300	74.8	74.8	74.8
	Indicated	101	25.2	25.2	100.0
	Total	401	100.0	100.0	



**Qualitative Interpretation:**

Approximately 25% of respondents (25.2%, n=101) indicated that before completing this survey they gained the information cited in Question D1 via other means.

### Other (Please Specify)

Respondents who indicated that before completing this survey they gained the information cited in Question D1 via "**Other**", were asked to please specify.

The most common responses in decreasing frequency were:

- **Study at University/TAFE/School** (n=23 responses) e.g. "Degrees in Environmental Science and sustainable diversity".
- **Work/Workplace** (n=18 responses) e.g. "Work - with City of Wanneroo".
- **Community/Volunteer Groups** (n=17 responses) e.g. "Membership of WA speleological group".

**PART E: DEMOGRAPHICS**

**Question E1.**

**Postcode**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6018	14	3.5	3.5	3.5
	6027	12	3.0	3.0	6.6
	6030	12	3.0	3.0	9.6
	6065	11	2.7	2.8	12.4
	6155	10	2.5	2.5	14.9
	6019	8	2.0	2.0	17.0
	6020	8	2.0	2.0	19.0
	6056	8	2.0	2.0	21.0
	6069	8	2.0	2.0	23.0
	6076	8	2.0	2.0	25.1
	6107	8	2.0	2.0	27.1
	6169	8	2.0	2.0	29.1
	6011	7	1.7	1.8	30.9
	6025	7	1.7	1.8	32.7
	6026	7	1.7	1.8	34.4
	6055	7	1.7	1.8	36.2
	6059	7	1.7	1.8	38.0
	6060	7	1.7	1.8	39.7
	6110	7	1.7	1.8	41.5
	6008	6	1.5	1.5	43.0
	6053	6	1.5	1.5	44.6
	6064	6	1.5	1.5	46.1
	6111	6	1.5	1.5	47.6
	6112	6	1.5	1.5	49.1
	6157	6	1.5	1.5	50.6
	6163	6	1.5	1.5	52.2
	6164	6	1.5	1.5	53.7
	6052	5	1.2	1.3	54.9
	6062	5	1.2	1.3	56.2
	6162	5	1.2	1.3	57.5

**Qualitative Interpretation:**

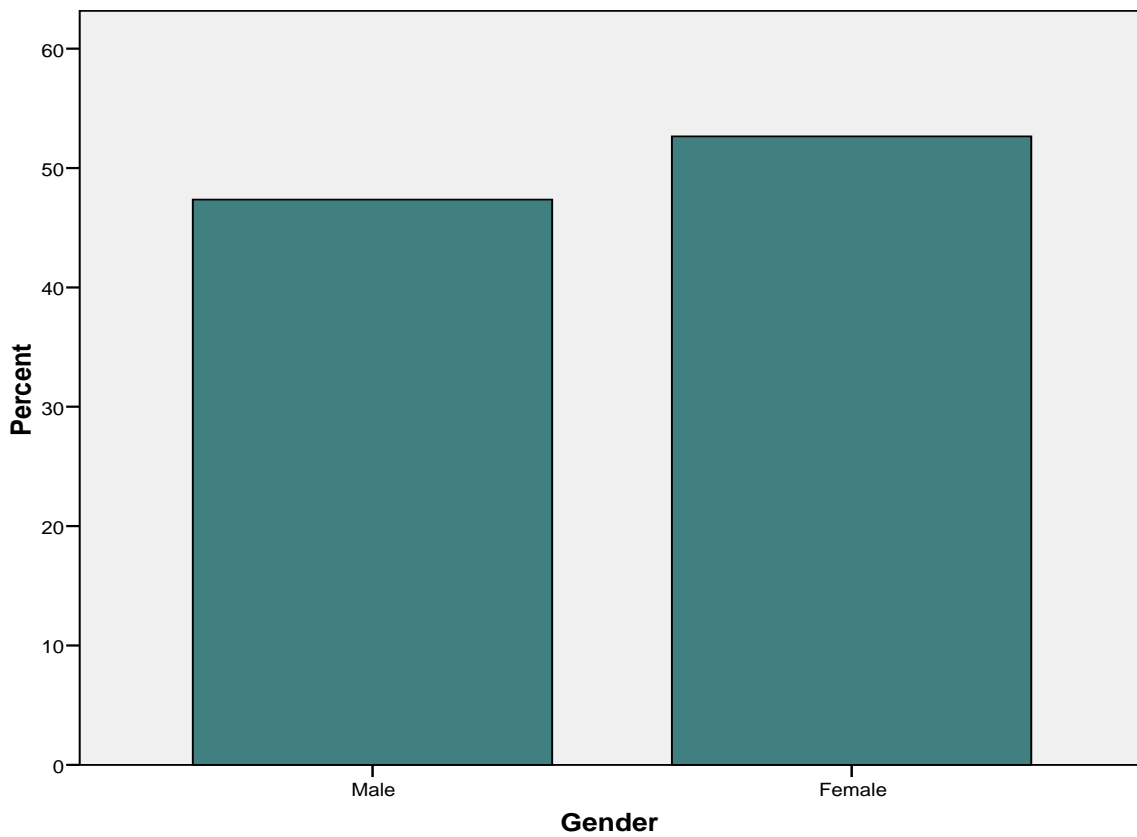
**Only Postcodes with 5 or more respondents are listed above.**

From the 375 respondents living in the Perth metropolitan area 54% reside north of the river and 46% reside south of the Swan River.

**Question E2.**

**Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	188	46.9	47.4	47.4
	Female	209	52.1	52.6	100.0
	Total	397	99.0	100.0	
Missing	System	4	1.0		
Total		401	100.0		



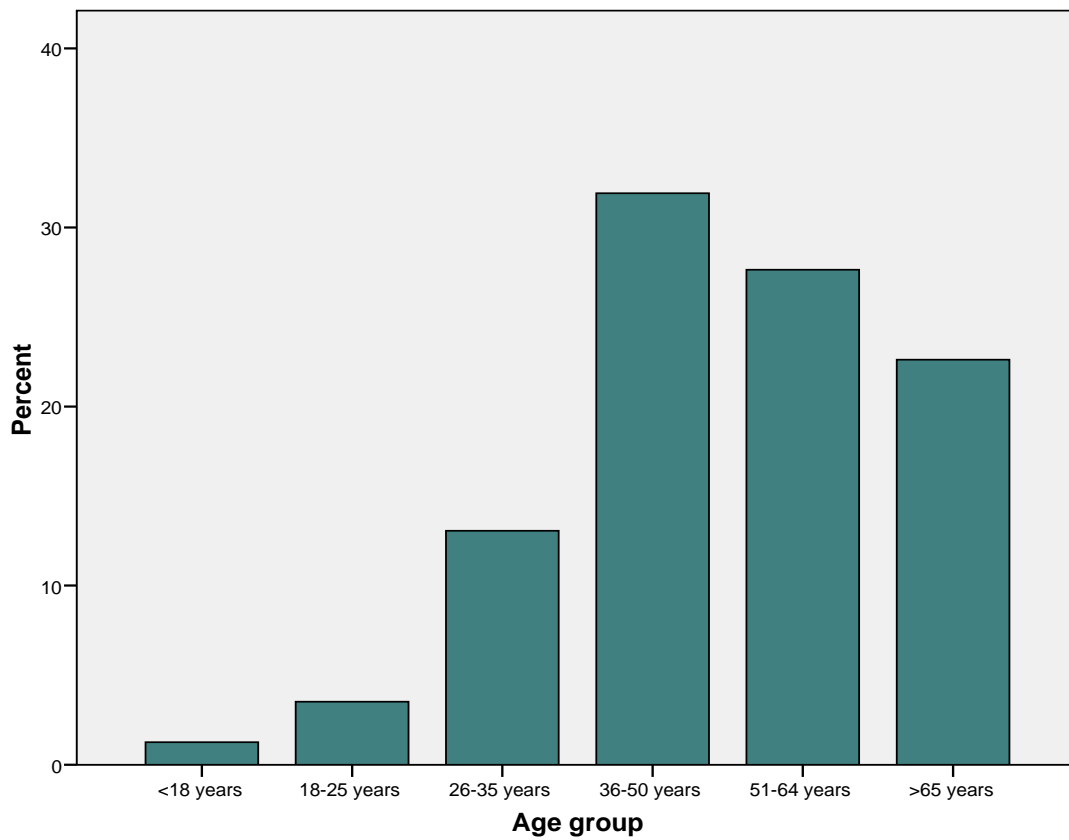
**Qualitative Interpretation:**

There were slightly more female respondents (52.6%, n=209) than male respondents (47.4%, n=188).

**Question E3.**

**Age group**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<18 years	5	1.2	1.3	1.3
	18-25 years	14	3.5	3.5	4.8
	26-35 years	52	13.0	13.1	17.8
	36-50 years	127	31.7	31.9	49.7
	51-64 years	110	27.4	27.6	77.4
	>65 years	90	22.4	22.6	100.0
Total		398	99.3	100.0	
Missing	System	3	.7		
Total		401	100.0		

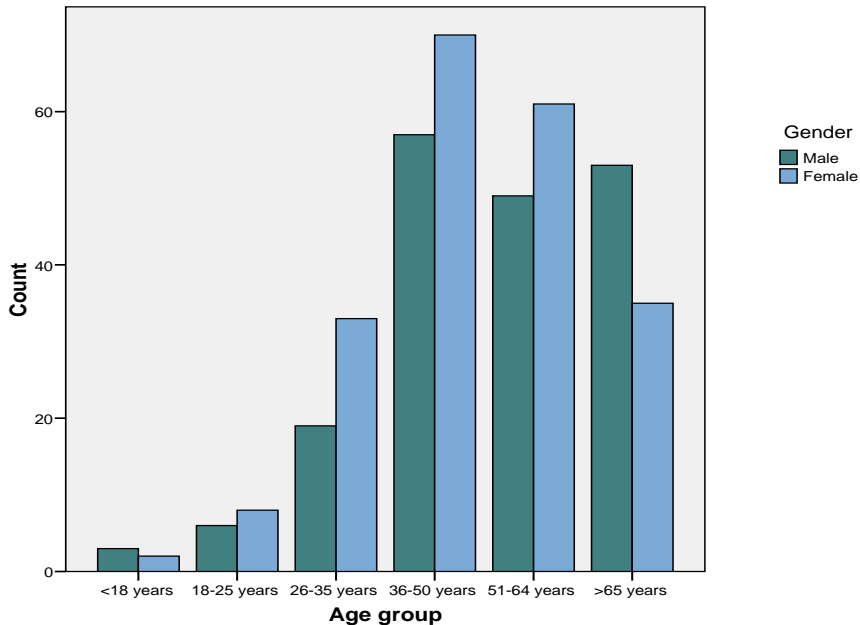


**Qualitative Interpretation:**

The majority of respondents (31.9%, n=127) were from the 36-50 year old age group. This was followed by 51-64 year olds (27.6%, n=110); 65 year and above (22.6%, n=90); 26-35 year olds (13.1%, n=52); 18-25 year olds (3.5%, n=14) and 18 years and under (1.3%, n=5).

Age group \* Gender

			Gender		Total
			Male	Female	
Age group	<18 years	Count	3	2	5
		% within Age group	60.0%	40.0%	100.0%
		% within Gender	1.6%	1.0%	1.3%
		% of Total	.8%	.5%	1.3%
	18-25 years	Count	6	8	14
		% within Age group	42.9%	57.1%	100.0%
		% within Gender	3.2%	3.8%	3.5%
		% of Total	1.5%	2.0%	3.5%
	26-35 years	Count	19	33	52
		% within Age group	36.5%	63.5%	100.0%
		% within Gender	10.2%	15.8%	13.1%
		% of Total	4.8%	8.3%	13.1%
36-50 years	Count	57	70	127	
	% within Age group	44.9%	55.1%	100.0%	
	% within Gender	30.5%	33.5%	32.1%	
	% of Total	14.4%	17.7%	32.1%	
51-64 years	Count	49	61	110	
	% within Age group	44.5%	55.5%	100.0%	
	% within Gender	26.2%	29.2%	27.8%	
	% of Total	12.4%	15.4%	27.8%	
>65 years	Count	53	35	88	
	% within Age group	60.2%	39.8%	100.0%	
	% within Gender	28.3%	16.7%	22.2%	
	% of Total	13.4%	8.8%	22.2%	
Total	Count	187	209	396	
	% within Age group	47.2%	52.8%	100.0%	
	% within Gender	100.0%	100.0%	100.0%	
	% of Total	47.2%	52.8%	100.0%	



**Qualitative Interpretation:**

The majority of respondents were females within the 36-50 year old age group (n=70, 17.7%), followed by males within the 36-50 year old age group (n=57, 14.4%). Females outnumbered males in all age groups except 18 years and under and 65 years and older.

**Question E4.**

*In which country were you born?*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid AUSTRALIA	254	63.3	63.3	63.3
ENGLAND	40	10.0	10.0	73.3
UNITED KINGDOM	16	4.0	4.0	77.3
NEW ZEALAND	14	3.5	3.5	80.8
SOUTH AFRICA	10	2.5	2.5	83.3
SCOTLAND	7	1.7	1.7	85.0
MALAYSIA	6	1.5	1.5	86.5
CANADA	5	1.2	1.2	87.8
NOT SPECIFIED	5	1.2	1.2	89.0
GERMANY	4	1.0	1.0	90.0
UK	4	1.0	1.0	91.0
INDONESIA	3	.7	.7	91.8
IRELAND	3	.7	.7	92.5
PHILIPPINES	3	.7	.7	93.3
ZIMBABWE	3	.7	.7	94.0
INDIA	2	.5	.5	94.5
KENYA	2	.5	.5	95.0
SWITZERLAND	2	.5	.5	95.5
THE NETHERLANDS	2	.5	.5	96.0
WALES	2	.5	.5	96.5
CROATIA	1	.2	.2	96.8
DENMARK	1	.2	.2	97.0
EGYPT	1	.2	.2	97.3
GHANA	1	.2	.2	97.5
ITALY	1	.2	.2	97.8
LIBYA	1	.2	.2	98.0
MOZAMBIQUE	1	.2	.2	98.3
NEW GUINEA	1	.2	.2	98.5
NORTHERN IRELAND	1	.2	.2	98.8
PAKISTAN	1	.2	.2	99.0
SRI LANKA	1	.2	.2	99.3
TUNISIA	1	.2	.2	99.5
USA	1	.2	.2	99.8
ZAMBIA	1	.2	.2	100.0
Total	401	100.0	100.0	

**Qualitative Interpretation:**

The majority of respondents (63.3%, n=254) were born in Australia. This was followed by England (10.0%, n=40), United Kingdom (4.0%, n=16) and New Zealand (3.5%, n=14).

**Question E5.**

*If you were not born in Australia, in which year did you come to live in Australia?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1971	8	2.0	5.6	5.6
	1974	6	1.5	4.2	9.9
	1980	6	1.5	4.2	14.1
	1982	6	1.5	4.2	18.3
	1963	5	1.2	3.5	21.8
	1968	5	1.2	3.5	25.4
	1975	5	1.2	3.5	28.9
	1981	4	1.0	2.8	31.7
	1988	4	1.0	2.8	34.5
	2002	4	1.0	2.8	37.3
	2004	4	1.0	2.8	40.1
	2007	4	1.0	2.8	43.0
	2008	4	1.0	2.8	45.8
	1955	3	.7	2.1	47.9
	1964	3	.7	2.1	50.0
	1967	3	.7	2.1	52.1
	1970	3	.7	2.1	54.2
	1972	3	.7	2.1	56.3
	1978	3	.7	2.1	58.5
	1986	3	.7	2.1	60.6
	1989	3	.7	2.1	62.7
	1991	3	.7	2.1	64.8
	2001	3	.7	2.1	66.9
	2005	3	.7	2.1	69.0
	2006	3	.7	2.1	71.1
	1952	2	.5	1.4	72.5
	1958	2	.5	1.4	73.9
	1960	2	.5	1.4	75.4
	1962	2	.5	1.4	76.8
	1965	2	.5	1.4	78.2
	1966	2	.5	1.4	79.6
	1969	2	.5	1.4	81.0
	1979	2	.5	1.4	82.4
	1987	2	.5	1.4	83.8
1998	2	.5	1.4	85.2	
1999	2	.5	1.4	86.6	

**Qualitative Interpretation:**

**Only years with two or more respondents are listed above.** The majority of respondents (n=8) came to live in Australia in 1971. This was followed by 1974 (n=6) and 1980 (n=6).

Question E6.

*What is your main occupation?*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RETIRED	67	16.0	16.0	16.0
	HOME DUTIES	30	7.5	7.5	23.4
	STUDENT	18	3.7	3.7	30.9
	TEACHER	10	2.5	2.5	33.4
	NURSE	9	2.2	2.2	35.7
	ADMINISTRATION	7	1.7	1.7	37.4
	ENGINEER	6	1.5	1.5	38.9
	MANAGER	6	1.5	1.5	40.4
	SALES	6	1.5	1.5	41.9
	GOVERNMENT WORKER	5	1.2	1.2	43.1
	IT CONSULTANT	5	1.2	1.2	44.4
	SELF EMPLOYED	5	1.2	1.2	45.6
	ACCOUNTANT	4	1.0	1.0	46.6
	BANK OFFICER	3	.7	.7	47.4
	BUSINESS ADVISOR	3	.7	.7	48.1
	CONSULTANT	3	.7	.7	48.9
	EDUCATION	3	.7	.7	49.6
	ELECTRICIAN	3	.7	.7	50.4
	FARMER	3	.7	.7	51.1
	PENSIONER	3	.7	.7	51.9

**Qualitative Interpretation:**

**Only occupations with three or more respondents are listed above.** The majority of respondents (n=67) were Retired. This was followed by Home Duties (n=30), and Student (n=18).

## PART E: EXECUTIVE SUMMARY

### HORTICULTURE

- Respondents were more concerned with where and how a vegetable is produced than its price.
- Approximately 89% of respondents Agreed that they were willing to pay more for fresh food for its nutritional value
- Approximately 94% of respondents Agreed that they wouldn't mind paying a little extra to support locally grown vegetables and fruit
- Approximately 89% of respondents Agreed that retaining production of fresh vegetables and fruit near the city is good for the quality of life of city people.
- Approximately 86% of respondents Agreed they would be willing to buy vegetables grown with recycled wastewater
- Respondents were asked to "Please provide any comments you would like to make regarding horticulture". The most common themes in decreasing frequency were:
  - Locally Grown (Western Australian) Produce is Best
  - Recycled/Wastewater Use
  - Concerns/Queries about Contamination of Produce
  - Use of Rainwater Tanks

### LAND USE

- Approximately 75% of respondents *Agreed* that establishing a horticultural industry is the best alternative land use once pines are harvested.
- Approximately 89% respondents *Agreed* that replacing with native vegetation is the best alternative land use once pines are harvested.
- Approximately 58% of respondents *Disagree* that replanting pines is the best alternative land use once pines are harvested.
- Approximately 57% of respondents that urban/industrial development is the best alternative land use once pines are harvested.
- Approximately 89% of respondents *Agreed* they support land use change of selected areas on the Gngangara Mound, only if it will have a positive impact on groundwater levels and quality.
- Approximately 95% of respondents *Agreed* that even if it costs them more for their new home, urban planning needs to minimise water use while maximising water re-use through stormwater and wastewater recycling.
- Respondents were asked to "Please provide any comments you would like to make regarding land use".

The most common themes in decreasing frequency were:

- Planning and Development for Future Land.
- Grey/Rainwater Recycling in Land
- Costs and Incentives for Changes in Land Use
- Lawn/Garden Changes in Land

## BIODIVERSITY

- Approximately 87% of respondents *Agreed* that climate change will severely impact biodiversity around Perth in the next 20 years.
- Approximately 56% of respondents *Disagreed* that most native mammals of the Perth area are still relatively common today.
- Approximately 71% of respondents *Disagreed* that most of the 600 wetlands on the Gnangara Mound will still be around in 25 years.
- Approximately 87% of respondents *Agreed* that Perth's Coastal Plain has native plants, animals and wetlands of world significance.
- Approximately 26% of respondents *Neither Agreed nor Disagreed* that we should burn our native bushland more regularly and a larger area each year to help add water to the groundwater system. Responses were spread almost evenly across the *Agreement* subscale [Total Agreement = 34.0%] and the *Disagreement* subscale [Total Disagreement = 32.0%] indicating that burning native bushland has divided support.
- Approximately 19% of respondents *Neither Agreed nor Disagreed* that from funding available, preference should be given to protecting individual threatened species and plants and not to protecting larger areas of native bushland. Responses were spread evenly across the *Agreement* subscale [Total Agreement = 34.7%] and the *Disagreement* subscale [Total Disagreement = 30.9%] indicating funding preferences have divided support.
- Approximately 68% of respondents indicated changing fire regimes posed a *Severe* or *Moderate Threat* to Perth's biodiversity.
- Approximately 72% of respondents indicated clearing and fragmentation of bushland posed a *Serious Threat* to Perth's biodiversity.
- 57% of respondents indicated climate change posed a *Serious Threat* to Perth's biodiversity.
- Approximately 80% of respondents indicated introduced predators (the fox and feral cat) posed a *Serious Threat* to Perth's biodiversity.
- Approximately 74% of respondents indicated introduced weeds posed a *Serious Threat* to Perth's biodiversity.
- Approximately 72% of respondents (72.1%, n=287) indicated Phytophthora fungi/dieback disease posed a *Serious Threat* to Perth's biodiversity.
- Respondents were asked to "Please provide any comments you would like to make regarding biodiversity".

The most common themes in decreasing frequency were:

- General Support for Sustaining Biodiversity
- Support for our Native Plants and
- Burning Native

## PRIOR AWARENESS ABOUT THE GNANGARA GROUNDWATER SYSTEM

- Approximately 94% of respondents indicated that before completing this survey they were already aware of declining groundwater levels.
- Approximately 74% of respondents indicated that before completing this survey they were already aware of the existence of a horticulture industry in Perth suburbs.
- Approximately 77% of respondents indicated that before completing this survey they were already aware of the Gnangara groundwater system.
- Approximately 65% of respondents indicated that before completing this survey they were not aware of the Gnangara Sustainability Strategy.
- Approximately 69% of respondents indicated that before completing this survey they were not aware of the pine plantation agreement with the State Government.
- Approximately 54% of respondents indicated that before completing this survey they were aware that 60% of Perth scheme water is extracted from Gnangara groundwater system.
- Approximately 88% of respondents indicated that before completing this survey they were already aware of wetlands drying up due to declining groundwater levels.
- Approximately 55% of respondents indicated that before completing this survey they gained the information cited in Question D1 via personal observation of the environment as a whole.
- Approximately 32% of respondents indicated that before completing this survey they gained the information cited in Question D1 via personal observation of the environment at a specific location.
- Approximately one-quarter of respondents indicated that before completing this survey they gained the information cited in Question D1 via friends and/or family.
- Approximately 63% of respondents indicated that before completing this survey they gained the information cited in Question D1 via the newspaper.
- Approximately 18% of respondents indicated that before completing this survey they gained the information cited in Question D1 via the internet.
- Approximately 35% of respondents indicated that before completing this survey they gained the information cited in Question D1 via the radio.
- Approximately 51% of respondents indicated that before completing this survey they gained the information cited in Question D1 via television.
- Just over one-quarter of respondents indicated that before completing this survey they gained the information cited in Question D1 via Local Government information/newsletters.
- Approximately 25% of respondents indicated that before completing this survey they gained the information cited in Question D1 via other means.
- Respondents who indicated that before completing this survey they gained the information cited in Question D1 via "Other", were asked to please specify.

The most common responses in decreasing frequency were:

- Study at University/TAFE/
- Work/Workplace
- Community/Volunteer Groups

## DEMOGRAPHICS

- A majority of respondents (32%) were from the 36-50 year old age group. This was followed by 51-64 year olds (28%), 65 year and above (23); 26-35 year olds (13%); 18-25 year olds (3.5%), and 18 years and under (1%).
- The majority of respondents were females within the 36-50 year old age group (18%), followed by males within the 36-50 year old age group (14%). Females outnumbered males in all age groups except 18 years and under and 65 years and older.
- The majority of respondents (63%) were born in Australia. This was followed by England (10%), United Kingdom (4.0%) and New Zealand (3.5%).
- The majority of respondents (63%) were born in Australia. This was followed by England (10%), The majority of respondents (n=67) were Retired. This was followed by Home Duties (n=30), and Student (n=18).