



Mosquito Management Survey

Prepared for: City of South Perth

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Strategic Insights

During the warmer months in Waterford, residents feel their quality of life could be enhanced by addressing concerns with mosquitoes

74% of Waterford residents who live in closer proximity to the river are satisfied with their overall quality of life during the warmer months, down from 84% two years ago.

Mosquitoes are the main cause for concern, spontaneously mentioned by 65% of respondents. Other concerns (each mentioned by less than 5% of respondents) related to airplane noise, safety, street trees, irrigation, power and street lighting.

70% of residents feel that mosquitoes are more of a concern in Waterford than in other river-side suburbs.

Mosquitoes have a moderate to high impact on residents

83% of residents feel that mosquitoes had a moderate to high impact on their lives during the summer months; up 5% points over the past two years. The impact is seen to be greatest at dusk (up from 90% to 95%), followed by nighttime (remaining fairly steady at 83%).

Residents are taking increasing action to reduce the impact of mosquitoes

Nearly everyone keeps their screen doors closed and around 78% continue to use avoidance strategies when mosquitoes are most active.

67% are now wearing insect repellent when outdoors (up from 55%) and 62% wear loose protective clothing when mosquitoes are most active (up from 45%). Further education is recommended to continue the positive trend.

Growing concern with mosquitoes

69% of residents feel mosquitoes were the same or less of a concern than the previous summer. However, 31% feel mosquitoes were more of a concern; up from 22% when the study was conducted two years ago.

1 in 2 residents continue to be satisfied with the City's Mosquito Management Plan.

Dissatisfaction is mainly driven by a perception that the Plan is not making a big enough difference. Residents want the root causes addressed, mainly stagnant water on private and public land (such as man-made ponds and marshland) and management of dog faeces.

Waterford residents want more transparency and accountability with City reporting.

Residents would like to know more about what the City is doing to manage mosquitoes, such as the number of traps used and type of treatments carried out, and how the City is measuring up against key performance indicators, such as mosquito numbers and trends.



The Study

The Study

The City of South engaged CATALYSE® to conduct a Mosquito Management Survey with residents in Waterford.

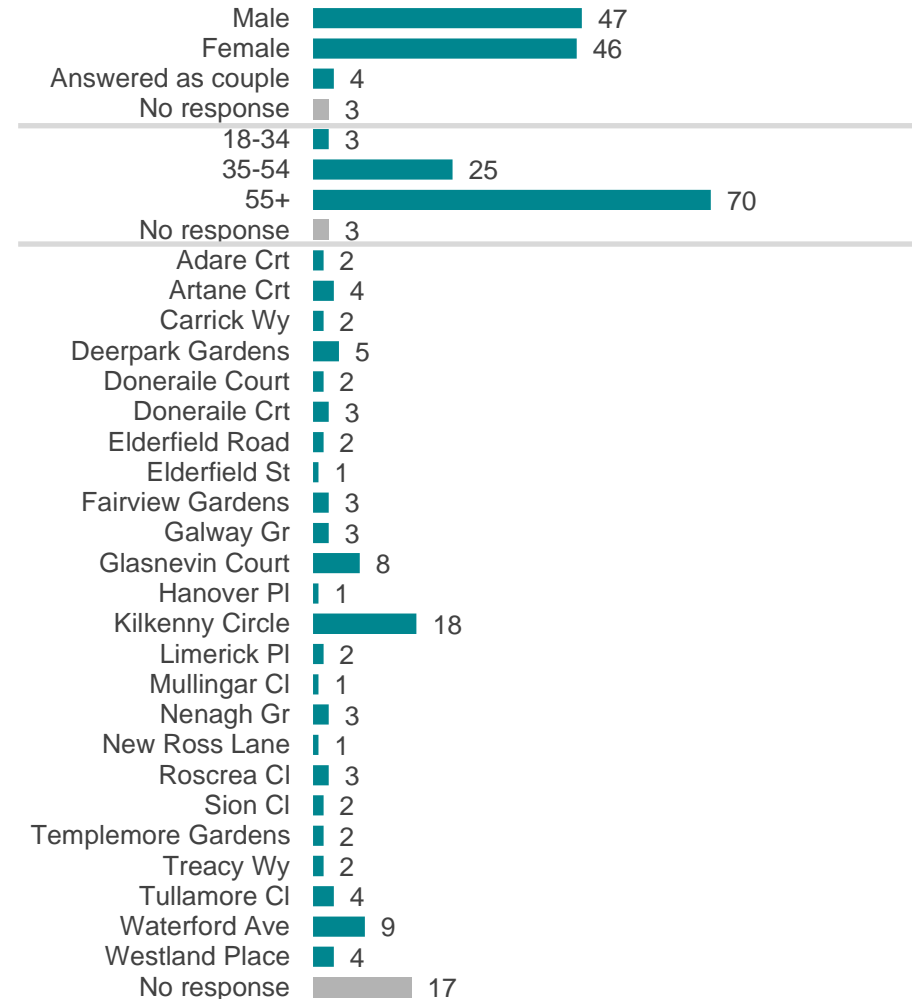
Purpose: to assess residents' views on the impact of mosquitoes and evaluate perceptions of the City's Mosquito Management Plan.

Methodology: the study was conducted using a combination of postal and online surveys. The City of South Perth identified and mailed a survey to all properties in the Waterford study area (n=330 properties).

Residents were invited to complete and return a survey directly to CATALYSE using a reply paid envelope or to submit their response online. The study was open between 31 July and 18 August, 2017. 110 residents completed a survey. Sampling precision is +/- 7.65% at the 95% confidence interval.

Results are compared to a 2015 phone survey with 75 randomly selected residents in Waterford who live in closer proximity to the river.

Sample Profile | % of respondents



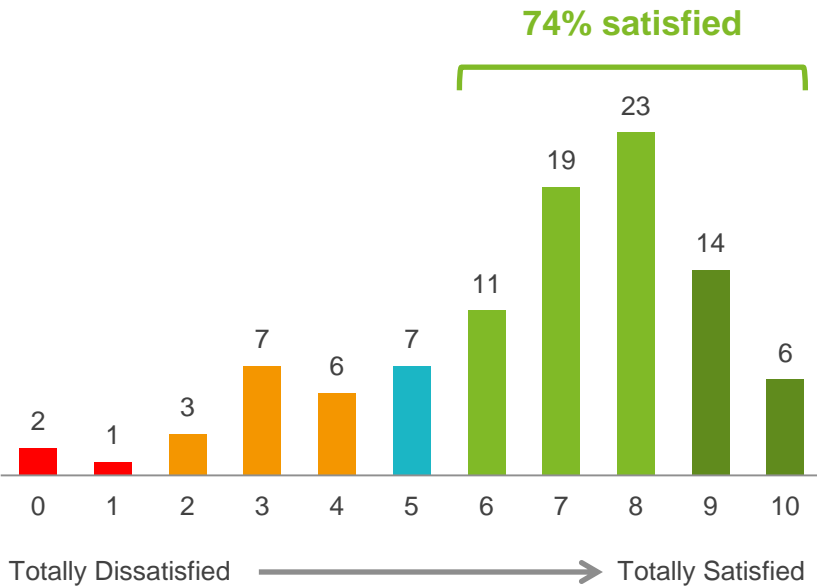
Quality of life in Waterford

Satisfaction with overall quality of life in Waterford

Overall, 74% of respondents are satisfied with the quality of life in Waterford. This is 10% points lower than two years ago. Satisfaction levels tend to be higher among males and lower among females.

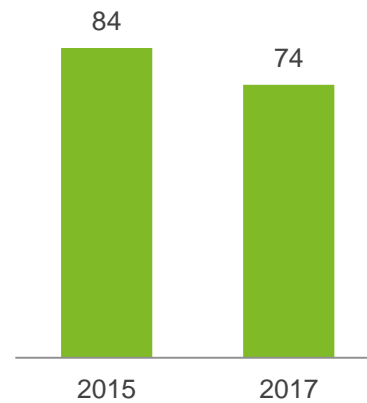
Performance ratings

% of respondents



Trend Analysis

% satisfied (6+)



Community Variances

% satisfied (6+)

All respondents	74
Male	81
Female	67
Under 55 years	76
Over 55 years	74

Q. Thinking about what it's been like to live in Waterford during warmer months over the past 12 months, say from August last year through to April this year, overall, how satisfied were you with your overall quality of life?

Base: All respondents, excludes 'unsure' and 'no response' (n = 108).

Suggestions to improve overall quality of life

65% of respondents suggested quality of life could be improved during the warmer months if there were fewer mosquitoes.

I am happy living in Waterford during the warmer months in general but the number of mosquitoes is quite a nuisance.

Firstly, Council should conduct aerial spraying when the mosquitoes first hatch and follow up with a second spraying at an appropriate following time. Secondly, the Council should treat the drain from Bodkin Lake near Fairview gardens where mosquitoes breed profusely in the partially blocked drain.

Inspect swimming pools - some are mossie breeding grounds.

There is increasing amounts of residents in Waterford who don't take care about mosquito breeding areas - leave old tyres full of water, pot plants, etc. You should inspect these properties and levy fines to those that do this.

Spray insect repellent at the bushland and creek in Bodkin Park.

Make sure the mosquito program is fully in operation. Brighter or more street lighting may help. Spraying to control breeding in areas where the problems exist.

The change from fogging to aerial spraying has led to a significant increase in mosquitoes around Fairview Gardens. This primarily due to the grass-choked channel (originally the living stream) near Fairview Gardens no longer being treated.

Regular treatments to waterways. Better control of 'dog faeces'. Dog faeces left in the lawn, footpath can attract flies, mosquitoes, racoons and rats.

Subsidise household mosquito traps because ours clearly protects more than us.

Other suggestions (each mentioned by less than 5% of respondents) related to airplane noise, safety, street trees, irrigation, power and street lighting.

Reduced aircraft noise.

Less aeroplanes during the early morning and midnight.

Brighter street lighting.

Dimmer street lights or something to stop it shining in bedroom window with window and curtain open.

More street trees to reduce the asphalt heat.

It would be good to see the park reticulation better controlled and targeted.

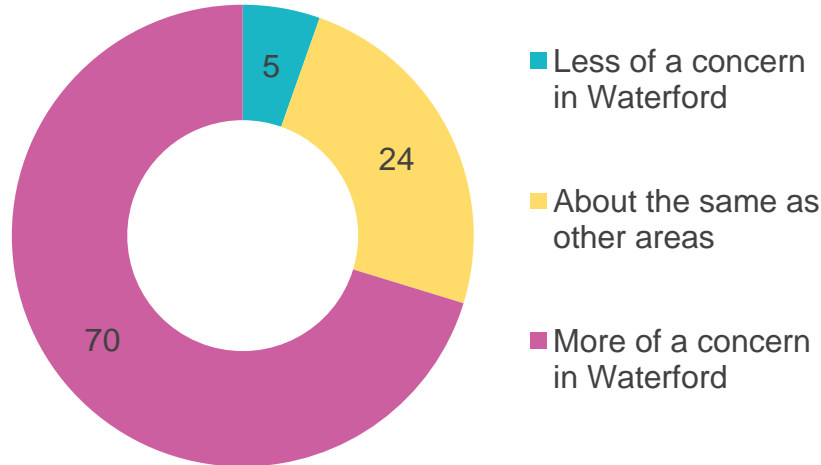
It appears power outages occur here but not in Salter Point. Is our infrastructure the problem?

Concern with mosquitoes compared to other areas

70% of respondents continue to feel that mosquitoes are more of a concern in Waterford than in other areas that are next to waterways in Perth. Perceptions are fairly similar across the community.

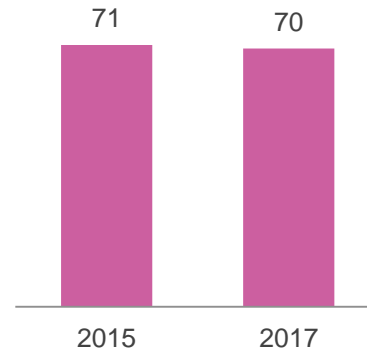
Performance ratings

% of respondents



Trend Analysis

% more of a concern



Community Variances

% more of a concern

All respondents	70
Male	74
Female	71
Under 55 years	68
Over 55 years	71

Q. Compared to other areas that are next to waterways in Perth, would you say mosquitos are less of a concern in Waterford, about the same as other areas or more of a concern in Waterford?

Base: All respondents, excludes 'unsure' and 'no response' (n = 74).

Concern with mosquitoes compared to last summer

25% of respondents feel that, compared to last summer, mosquitoes in Waterford were less of a concern this summer.

However, 31% feel that mosquitoes were more a concern this summer.

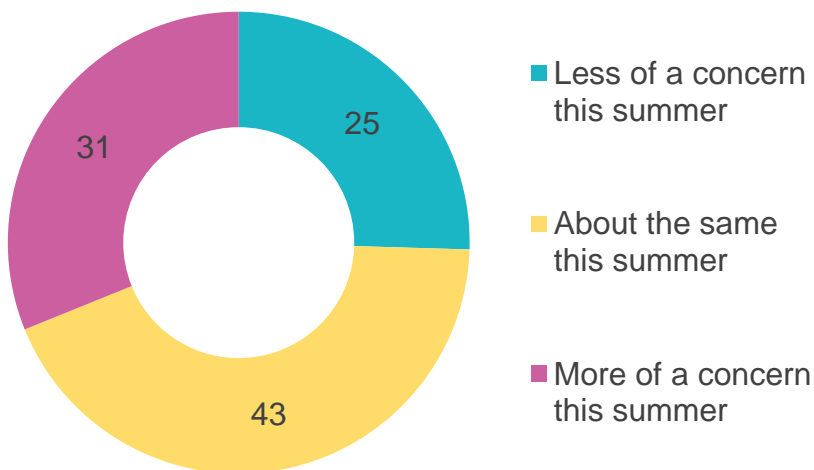
Net Score = 6% of residents feel mosquitos were more of a concern.

The proportion of respondents who feel mosquitoes are more of a concern has increased over the past two years; up 9% points.

Females and younger residents (under 55 years) tend to feel mosquitos are becoming a bigger issue.

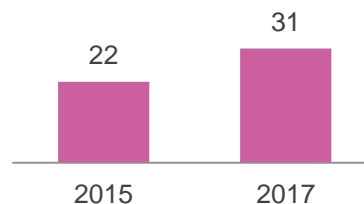
Performance ratings

% of respondents



Trend Analysis

% more of a concern



Community Variances

% more of a concern

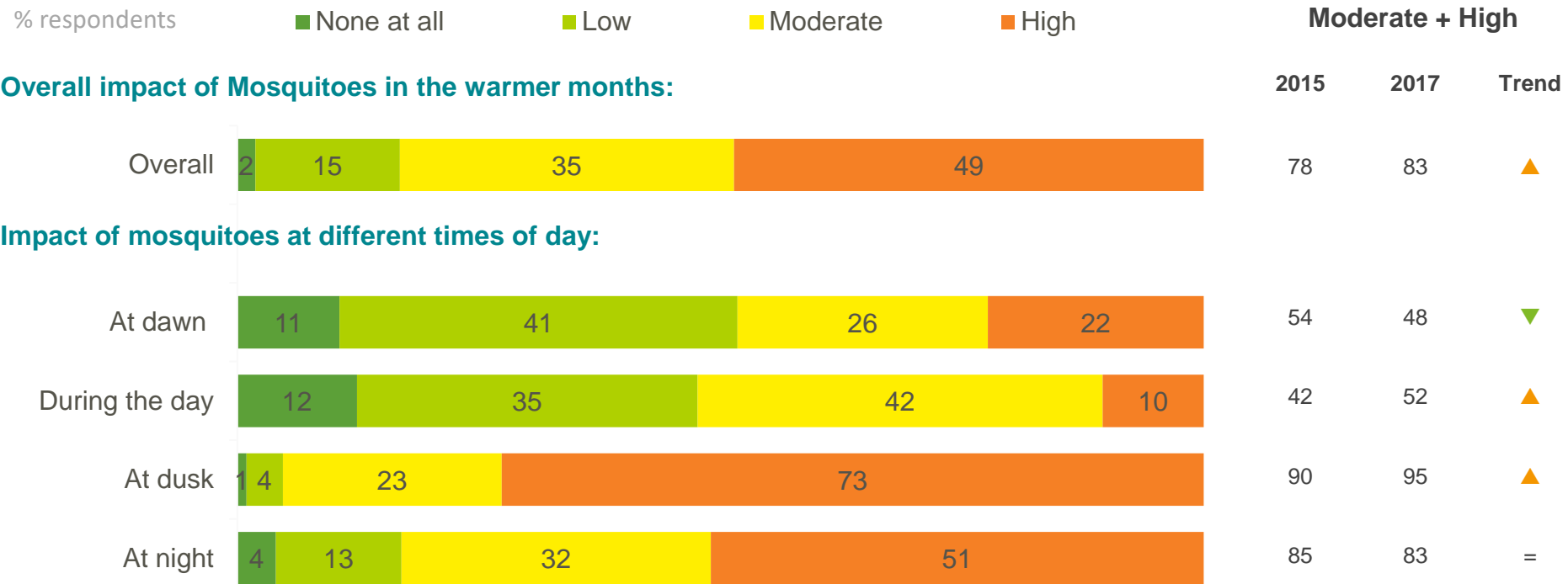
All respondents	31
Male	29
Female	35
Under 55 years	38
Over 55 years	28

Q. Thinking about the past two summers, would you say mosquitoes in Waterford were less of a concern this summer, about the same this summer or more of a concern this summer?

Base: All respondents, excludes 'unsure' and 'no response' (n = 106).

Degree of impact from mosquitoes

83% of respondents feel mosquitoes had a moderate to high impact on them during the warmer months; up 5% points. Residents continue to be mostly concerned with the impact of mosquitoes at dusk, followed by night time.



Q. Over the past 12 months, to what degree were you impacted by mosquitoes in Waterford?

Q. During the warmer months, how would you rate the impact of mosquitoes in Waterford at the following times of day?

Base. All respondents, excludes 'unsure' and 'no response' (n= varies from 85 to 107)

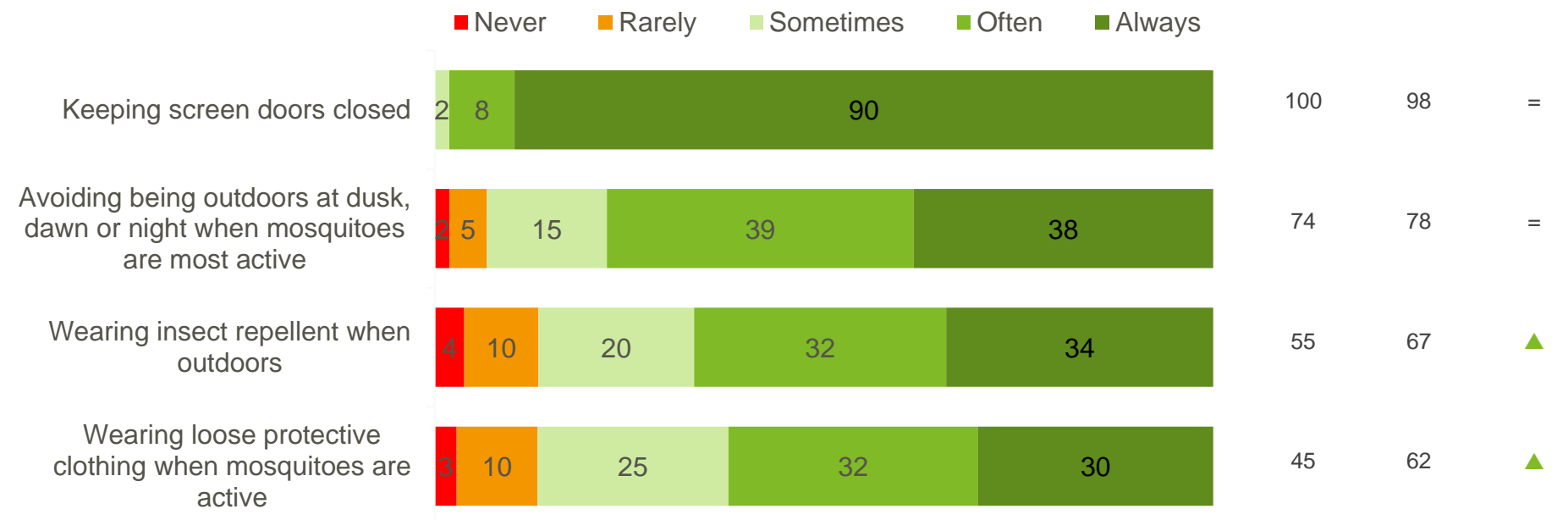
Actions to reduce impacts

An increasing proportion of residents in Waterford are taking action to reduce the impact of mosquitoes:

- Nearly everyone keeps their screen doors closed often or all the time.
- 78% avoid being outdoors at dusk, dawn or night when mosquitos are active.
- 67% of residents often or always wear insect repellent when outdoors; up 12% points.
- 62% of residents often or always wear loose protective clothing when mosquitos are active; up 17% points.

Frequency of taking action to reduce impact of mosquitoes:

% respondents



Q. How frequently do you take the following actions to reduce the impact of mosquitoes?

Base. All respondents who gave a valid answer (n= varies from 104 to 107)

Mosquito Management Program

Satisfaction with the Mosquito Management Program

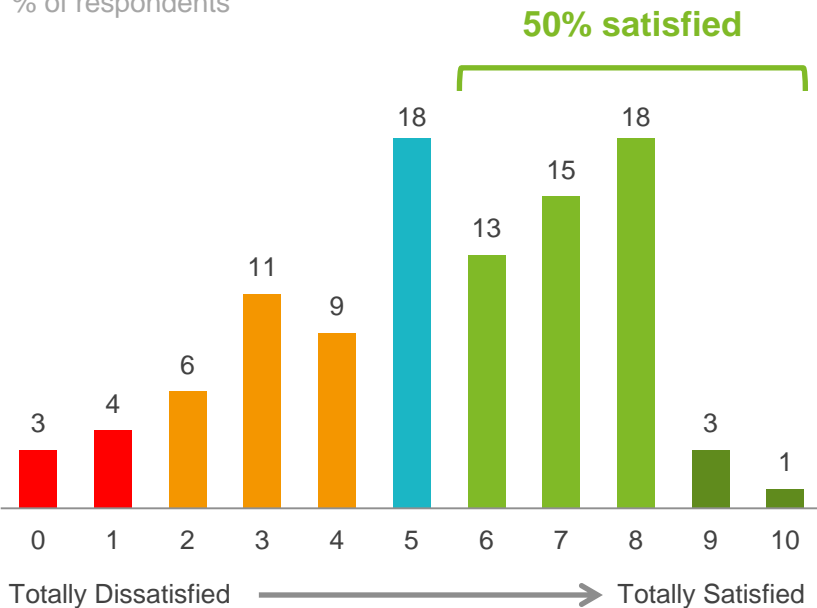
There is increasing awareness of the City's Mosquito Management Plan. 95% of respondents were familiar enough with the Plan to rate their satisfaction; up from 77% two years ago.

Overall, 50% are satisfied with the Plan; up slightly from 47%.

Views were similar across the community.

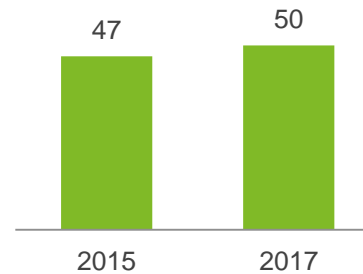
Performance ratings

% of respondents



Trend Analysis

% satisfied (6+)



Community Variances

% satisfied (6+)

All respondents	50
Male	51
Female	50
Under 55 years	52
Over 55 years	49

Q. How satisfied have you been with the City of South Perth's Mosquito Management Program?

Base: All respondents, excludes 'unsure' and 'no response' (n = 104).

Reasons for dissatisfaction with the City's Mosquito Management Program

The program is not making a difference (13 comments)

Problem not being resolved.

We appreciate that you are addressing the problem but a more thorough job/solution is required.

It has made no difference to the mosquitoes. We are prisoners in our home.

You need to do more than what you are doing as the problem is still there.

It's not working (if at all are you doing anything).

Program has been ineffective to reduce the number of mosquitoes.

The City's program appears to be only token appearance. The mosquitoes breeding areas on the waterfront do not appear to be treated at all.

Overall effectiveness especially near the water.

Lack of control.

There doesn't seem to be any vast improvement in reducing the mosquito issue.

Mosquitoes were worse last summer than the previous 2 summers. Still, not as bad as they were a few years ago.

Needs to be more proactive.

Our neighbour sold up and left the area because of the swamp created by the city.

Need to address the root cause (5 comments)

The source needs to be treated and the symptoms will disappear.

Get rid of stagnant water especially where trees have been uprooted.

Residents should be instructed to take care of eliminating mosquitoes within their property by keeping it clean or advise residents that additional dollars will be levied if they don't look after same.

Spraying is not sufficient - breeding grounds abound. Stagnant pools of water in areas close to housing. Very wet ground along Treacy Way and Waterford Drive. Stagnant marsh land. Overgrown weeds and non native vegetation.

Irregular treatment, dog faeces, birds droppings, man-made ponds is stagnant and encourages mosquitoes.

Reasons for dissatisfaction with the City's Mosquito Management Program

Need to improve timing, frequency and effectiveness of controls (6 comments)

Frequency should be increased. More effective control.

Continual prophylactic mosquito control i.e. spray regularly not only when they increase to intolerable levels.

I think they need to spray more often.

Needs to be concentrated on - to keep control.

Need to act BEFORE they become a problem (usually February).

Needs to start earlier in the summer so it is more proactive rather than reactive once things are bad. Use of helicopter to drop larvacide in inaccessible wetland needs to be more often. Consider use of drones to drop larvacide as a cheaper option. More frequent fogging of stagnant water in creeks/ponds.

Health and wellbeing concerns (3 comments)

I contracted Ross River Virus in April 2017, bitten on my own property.

I have grandchildren so find it hard to keep doors and screens closed. I also have high allergy issues with mosquito bites.

The mosquito management needs to be addressed for our community and health and wellbeing. A project should be monitored every season. NB: Always use repellent when outdoors but hate using it.

Require more environmentally friendly solutions (2 comments)

Some summers have been better than others but I'd like to see more effective (and enviro-friendly) methods of control.

Make sure the insecticide used is safe. Maybe more natural approach as well.

Environmental concerns outweigh human concerns (2 comments)

We think they worry more about killing mosquitoes than the public welfare. They worry unnecessarily about the environment and sprays than they do about us - chemicals today are mostly OK and if one does some investigation chemicals are available and primary.

Too worried about conservation.

Bodkin Park treatment

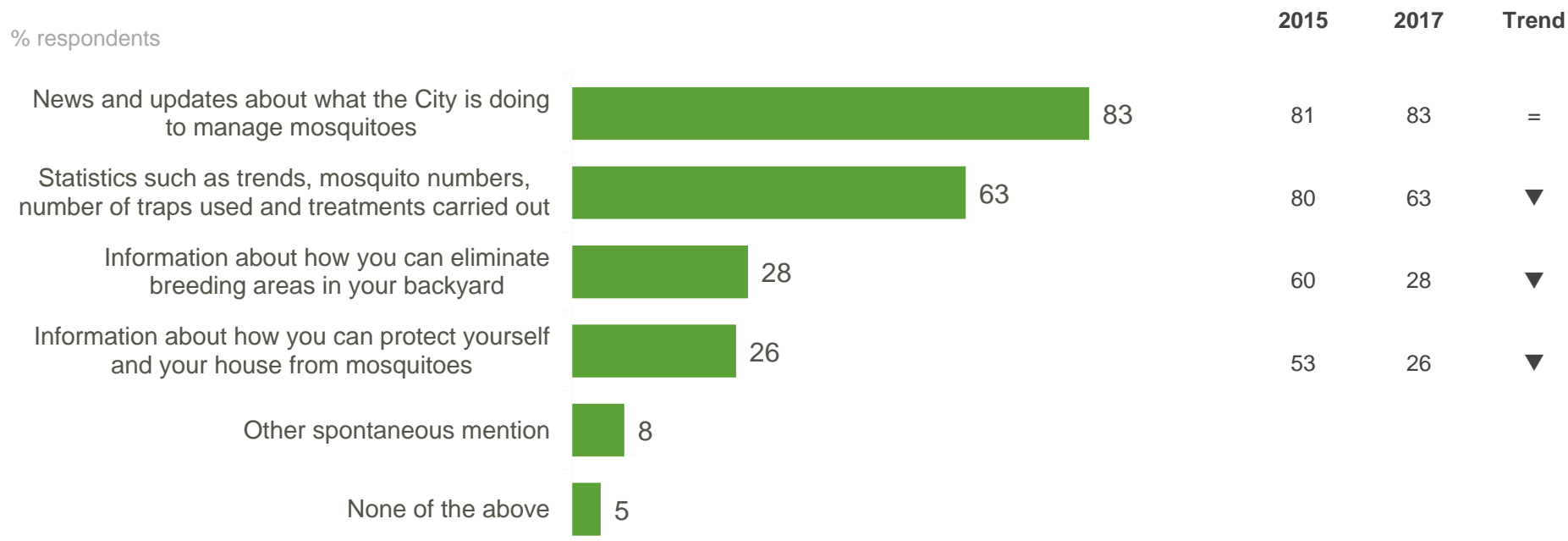
The treatment carried out in Bodkin Park. In this summer.

Interest in receiving information

Residents in Waterford are interested in receiving more information; particularly news and updates about what the City is doing to manage mosquitoes, supported with statistics related to trends, mosquito populations, number of traps used, and treatments being carried out.

There is less interest in resident driven initiatives, such as what they can do eliminate breeding in their own backyard and what steps they can take to protect themselves and their homes from mosquitoes.

Interested in receiving the following information:



Q. The City aims to keep residents up-to-date and informed about mosquito management. Please indicate which information you'd be interested in receiving in future: [options listed as shown in chart]

Base: All respondents, excludes 'no response' (n = 106).



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