TO: Planning and Environment Committee
FROM: Community Advisor Road Safety
MEETING DATE: 26 January 2009
SUBJECT: BLOOD ALCOHOL CONCENTRATION

SUMMARY
Alcohol and Road Trauma – A Call for Lower Blood Alcohol Concentrations

The Point Zero Five Group calls for support for the lowering of the legal blood alcohol concentration (BAC) for driving to 50mg alcohol/100 ml blood for adult drivers.

The Point Zero Five Group is an Auckland based group of individuals and agencies that have an interest in alcohol and road safety. The group is comprised of members of the New Zealand Police, Alcohol Healthwatch, Brain Injury Association, public health professionals, road safety co-ordinators, Students Against Driving Drunk, injury prevention professionals and treatment specialists.

The Point Zero Five Group aims to reduce alcohol-related harm in the community by reducing the blood alcohol concentration for driving from 80mg alcohol/100ml blood to 50mg alcohol/100ml blood. This is supported by the Dunedin Road Safety Partners Group.

To this end the Point Zero Five Group wishes to take signed letters of support to Parliament. Achieving a law change can be a long process. Support from local authorities would be greatly appreciated. To date Auckland, North Shore and Waitakere City Councils, Rodney, Papakura, Franklin and Waimakariri District Councils and the Canterbury Regional Transport Committee have passed motions of support.

IMPLICATIONS FOR:
(i) Policy: No
(ii) Approved Annual Budget: No
(iii) LTCCP/ Funding Policy: No
(iv) Activity Management Plans: No
(v) Community Boards: No
RECOMMENDATIONS

That the Council:

1  Support and endorse the Point Zero Five Group policy statement to lower the blood alcohol limit for driving to 50mg alcohol/100 ml blood.

2  Support accompanying efforts by the Group including promoting the discussion of issues relating to alcohol and road safety.
INTRODUCTION

Alcohol is one of the biggest contributing factors to New Zealand’s road death toll. In 2006 alcohol was a contributing factor in:

- 99 fatal traffic crashes;
- 409 serious injury crashes;
- 1128 minor injury crashes. These crashes resulted in 109 deaths, 556 serious injuries and 1768 minor injuries.
- The total social cost of crashes involving drivers under the influence of alcohol/drugs was approximately $725 million in New Zealand alone. (In 2002 the estimated social cost of drinking related crashes was $600 million). This figure accounts for about a fifth of the social cost associated with all injury crashes.

The current NZ BAC limits are:

**Adult**
Blood = 80 milligrams of alcohol per 100ml of blood
Breath= 400 micrograms of alcohol per litre of breath

**Youth** (under 20 years)
Blood = 30 milligrams of alcohol per 100ml of blood
Breath= 150 micrograms of alcohol per litre of breath

**Number of Over the Limit Crashes in New Zealand**

<table>
<thead>
<tr>
<th>Year</th>
<th># Of Over the Limit Alcohol Related Crashes</th>
<th># of General Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>806</td>
<td>10,724</td>
</tr>
<tr>
<td>2004</td>
<td>769</td>
<td>10,494</td>
</tr>
<tr>
<td>2005</td>
<td>817</td>
<td>10,926</td>
</tr>
<tr>
<td>2006</td>
<td>977</td>
<td>11,427</td>
</tr>
<tr>
<td>2007</td>
<td>954</td>
<td>11,946</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4323</strong></td>
<td><strong>55,517</strong></td>
</tr>
</tbody>
</table>

**Number of Over the Limit Crashes in Dunedin City District**

<table>
<thead>
<tr>
<th>Year</th>
<th># of Over the Limit Crashes</th>
<th>General Crashes # of %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>28</td>
<td>513  5.46</td>
</tr>
<tr>
<td>2004</td>
<td>25</td>
<td>502  4.98</td>
</tr>
<tr>
<td>2005</td>
<td>37</td>
<td>539  6.86</td>
</tr>
<tr>
<td>2006</td>
<td>32</td>
<td>482  6.64</td>
</tr>
<tr>
<td>2007</td>
<td>29</td>
<td>499  5.81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>151</strong></td>
<td><strong>2535  5.96</strong></td>
</tr>
</tbody>
</table>

**Dunedin City District in Comparison to Southern District Councils 03/07**

<table>
<thead>
<tr>
<th>Council</th>
<th># of Over the Limit Crashes</th>
<th>General Crashes # of %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunedin City</td>
<td>151</td>
<td>2535  5.96</td>
</tr>
<tr>
<td>Clutha</td>
<td>23</td>
<td>547  4.20</td>
</tr>
<tr>
<td>Invercargill</td>
<td>56</td>
<td>1088  5.15</td>
</tr>
<tr>
<td>Southland</td>
<td>78</td>
<td>843  9.25</td>
</tr>
<tr>
<td>Gore</td>
<td>20</td>
<td>212  9.43</td>
</tr>
<tr>
<td>Central Otago</td>
<td>26</td>
<td>397  6.55</td>
</tr>
<tr>
<td>Queenstown</td>
<td>41</td>
<td>571  7.18</td>
</tr>
<tr>
<td>Waitaki</td>
<td>21</td>
<td>479  4.38</td>
</tr>
</tbody>
</table>
BACKGROUND

The Point Zero Five Group is a representative group of individuals and agencies that have an interest in alcohol and road safety including members of the NZ Police, Alcohol Healthwatch, Road Safety Co-ordinators, Brain Injury Association and public health and treatment specialists. The purpose of the group is to reduce alcohol related harm in the community by reducing the Blood Alcohol Concentration for driving to 50mg alcohol/100ml blood by:

- Advocating for the Blood Alcohol Concentration (BAC) to be lowered to 0.05.
- Providing accurate information and education about why the BAC should be lowered to 0.05.
- Promoting discussion of issues relating to alcohol and road safety.

DISCUSSION

Research has shown that important driving skills including vision, steering and braking are adversely affected by even small amounts of alcohol. Significant impairment in driving ability can be seen at alcohol concentrations as low as 20mg.

An alcohol impaired driver has 17 times the risk of being involved in a fatal crash compared to an unimpaired driver. It also has an impact on the severity of the injuries experienced in a crash. The relative risk of having a crash is even higher for those aged between 16–19 years old.

<table>
<thead>
<tr>
<th>Blood Alcohol Concentration</th>
<th>Increased Chance of Death Compared to Sober Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.03 (30mg)</td>
<td>1.2</td>
</tr>
<tr>
<td>0.07 (70mg)</td>
<td>1.5</td>
</tr>
<tr>
<td>0.12 (120mg)</td>
<td>2.4</td>
</tr>
<tr>
<td>0.17 (170mg)</td>
<td>2.5</td>
</tr>
<tr>
<td>0.22 (220mg)</td>
<td>3.7</td>
</tr>
</tbody>
</table>

(Source: Dennis, 2000)

Legal BAC limits at 80mg/100ml allow twice as much risk as 50mg/100ml limits.

Further to this a BAC limit should give clear formal guidance to drivers about safe driving practice. It is posited that at 0.08 New Zealand’s current legal limit does not do this, given evidence from crash risk studies and a demonstration of how much alcohol is required to be just over the current legal limit of 0.08 – most individuals in the general driving population would have to be very drunk to be over the 0.08 BAC limit. The current limit sends an ambiguous message to the public, inconsistent with advertising campaigns and advice from key stakeholders warning about the dangers of drink driving, and is at odds with the country’s Road Safety 2010 Strategy.

Australian research has shown that lowering the legal blood alcohol concentration to 50mg/100ml will not only reduce drink driving at the 50mg–80mg levels but will also reduce drink driving at higher blood alcohol concentrations. After the limit was lowered to 50mg in the Australian Capital Territories there was a 41% reduction in those caught with more than a 150mg blood alcohol concentration.

Lower blood alcohol limits encourage drivers to keep a better count of the drinks they consume in order to stay below the limit and allow the driver the opportunity to make more rational decisions about whether to stop drinking and whether or not to drive. A reduction from 0.08 to a 0.05 BAC would not interfere with those who currently drink in moderation.

International studies have suggested that lower blood alcohol levels may contribute to positive changes in public attitudes towards drinking and driving.
Countries that have a 0.08 BAC Limit

- United Kingdom
- Kenya
- Paraguay
- Ireland
- Malaysia
- Singapore
- Canada – 1 Province
- Malta
- Uganda
- USA - 50 States
- Mexico
- Uruguay
- Botswana
- New Zealand
- Zimbabwe
- Guatemala
- Nicaragua
- Zambia

It should be noted that the United Kingdom is currently under scrutiny by the European Union with regard to its BAC limit being at odds with European Road Safety strategy. Ireland is also at present reviewing its limit.

Countries that have a 0.05 BAC Limit

- Australia
- Argentina
- Austria
- Belgium
- Bulgaria
- Republic of Croatia
- Belarus
- Cambodia
- Costa Rica
- El Salvador
- Kyrgyzstan
- Latvia
- Denmark
- Finland
- France
- Germany
- Greece
- Iceland
- Israel
- Italy
- Macedonia
- Netherlands
- Egypt
- Portugal
- Slovenia
- Spain
- Mauritius
- Canada – 8 Provinces
- Bosnia
- South Africa
- South Korea
- Switzerland
- Thailand
- Turkey
- Venezuela
- Luxembourg

Countries that have a 0.02 BAC Limit

- Sweden
- Norway
- Estonia
- Poland
- Mongolia

Countries that have a 0.00 BAC Limit

- Czech Republic
- Hungary
- Bahrain
- Romania
- Columbia
- Brazil
- Armenia
- Azerbaijan
- Panama
- Slovakia
- Pakistan

The World Health Organisation states that an upper limit of 50mg/100ml for the general driving population represents best practice (Peden at al, eds, 2004).

International Results of Decreasing Blood Alcohol Concentration to 50mg

- Queensland has seen an 18% reduction in fatal collisions and a 14% reduction in serious crashes.
- Austria has delivered a 9% decrease in alcohol-related crashes.
- In Germany the number of alcohol related crashes has more than halved and in France a 30% decline has been observed.
- Belgium has seen a 10% decrease in fatalities.

According to the commissioned November 2004 Review of the New Zealand Road Safety to 2010 Strategy, by Jeanne Breen Consulting – an international expert in Road Safety based in the United Kingdom, the most effective measure not yet implemented, that would see a dramatic reduction in the New Zealand road toll and help meet the targets of the Road Safety Strategy 2010 of less than 300 road deaths annually, is to lower the blood alcohol concentration to 50mg, in line with international best practice.

Expected Lives that could be saved in New Zealand with a 50mg BAC

- A reduction in the number of drink drivers on our roads therefore leading to lives saved and a significant reduction in the number of serious injuries from alcohol-impaired driving.
• Taking international reductions into account, New Zealand can expect to save between 14–72 lives and 260–1280 injuries each year, representing at the very least a 4.5% reduction in social cost of $100 million plus dollars annually (Jeanne Breen Consulting 2004).

• If an intensive advertising and enforcement campaign was implemented in conjunction with the reduction in the BAC it is highly probable that even more lives would be saved and more injuries prevented.

The legislative proposal would make 0.05 BAC drink/drive offences ticketable at the roadside by Police with demerit points and fines. Drivers who are over 0.08 BAC would still be required to go through the current court proceedings and face the current penalties.

OPTIONS

Proposed Motion

The Point Zero Five Group call for the Dunedin City Council to:

• support and endorse their policy statement to lower the blood alcohol limit for driving to 50mg alcohol/100 ml blood;
• support accompanying efforts by the group including the discussion of issues relating to alcohol and road safety.

Advantages

Dunedin City road-related alcohol harm statistics are likely to improve with associated social costs decreasing if Government adopts a law change to lower the limit. This may also have flow-on effects for alcohol-related harm in general.

Dunedin City commitment to helping achieve 2010 road safety targets is demonstrated.

Disadvantages

None foreseen at this point

CONCLUSION

Support reduction of the BAC due to:

1. National and Local Governmental commitments to 2010 Road Safety targets.
2. The continued significance of alcohol-related road trauma both nationally and locally.
3. More action required if the road safety targets of 2010 are to be achieved.
4. Considerable evidence of the road safety and economic benefits of lower BAC levels.

Prepared by:  Approved for submission by:

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Community Advisor Road Safety    Manager Transportation Operations

Approved by:    Tony Avery
General Manager City Environment

Date report prepared:  13 January 2009