1. Introduction
In May 2008, the B.C. government enacted Bill 39, the Greenhouse Gas Reduction (Vehicle Emissions Standards) Act. The Act enables implementation of a government commitment made in the 2008 Throne Speech to set vehicle greenhouse gas (GHG) emission standards equivalent to those laid out in California’s 2004 regulation. The Act will be brought into force by regulation – enacted when (and not before) the equivalent California regulation and standards are implemented. The Ministry of Environment is presently developing the regulation to accompany the new Act.

The standards will establish reductions in GHG emissions of 30 percent relative to current vehicle fleets – and would, by 2016, result in reducing British Columbia’s GHG emissions by 600,000 tonnes a year compared to new Corporate Average Fuel Economy (CAFE) standards adopted in the United States.

The new Act and associated regulation are one component of legislation and policies to fulfill the provincial government’s legislated requirement to reduce B.C.’s greenhouse gas emissions by at least 33 per cent below current levels by 2020.

The process for establishing the regulation consists of five stages:

Drafting – preparing legal language for consideration by the Minister and Lieutenant Governor-in-Council.
Implementation – informing government staff and external stakeholders of expectations and requirements set out in the regulation.

This intentions paper provides background information regarding vehicle GHG emission standards and B.C.’s new Greenhouse Gas Reduction (Vehicle Emissions Standards) Act, and a summary of the ministry’s intentions regarding regulation under this Act. The final section describes avenues for providing comment on the ministry’s intentions, using the prepared response form or separate submission. Tables of acronyms and abbreviations and California vehicle emission standards are also included in appendices to the paper.

The ministry is seeking comments from stakeholders, First Nations and the general public on the new regulation. Information on the Greenhouse Gas Reduction (Vehicle Emissions Standards) Act and regulation, as well as other actions being taken to reduce GHG emissions in B.C., can be found at the LiveSmart BC website: www.livesmartbc.ca or the Climate Action Secretariat website under the “progress” link: www.climateactionsecretariat.gov.bc.ca. This intentions paper, and accompanying response form, can be accessed by clicking on the address below, or from the Ministry of Environment homepage, by following the Environmental Protection Division and Climate Change Section links. See: www.env.gov.bc.ca/air/climate.

2. Background Information
The transportation sector is responsible for 36 per cent of B.C.’s total greenhouse gas emissions (including consideration of deforestation emissions). In 2005, light duty vehicles were responsible for about two-fifths of all B.C.’s transportation emissions – about 9.5 million tonnes annually. Opportunities for reducing emissions

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1 B.C. Legislature Speech from the Throne, February 12, 2008. See: www.leg.bc.ca/38th4th/4-8-38-4.htm
2 See: www.leg.bc.ca/38th4th/3rd_read/gov39-3.htm
3 B.C. Legislature Speech from the Throne, February 13, 2007. See: www.leg.bc.ca/38th3rd/4-8-38-3.htm
4 See B.C.’s Climate Action Plan for additional information regarding GHG emissions by sector, as well as planned actions to reduce these emissions:
from the transportation sector include reducing the distance driven, improving fuel economy of vehicles, reducing the carbon content of fuel and reducing emissions of greenhouse gases other than carbon dioxide from the tailpipe or air conditioning systems.

Because carbon in fuels such as gasoline is converted into carbon dioxide, vehicle exhaust emissions standards will address the fuel economy element of the GHG emission reduction picture. Both fuel consumption and GHG emissions standards limit the amounts of key carbon dioxide coming from a vehicle’s tailpipe however, emissions standards can also recognize non-carbon dioxide GHG emission reductions and shifts to less carbon intensive fuels.

Over the past thirty years, Canada has had a voluntary policy for improvements in fuel consumption from cars and light trucks. The federal government has recently announced its intent to regulate the fuel consumption of motor vehicles under the authority of the Motor Vehicle Fuel Consumption Standards Act starting with the 2011 model year.7

Manufacturers providing vehicles for sale in the United States must meet Corporate Average Fuel Economy (CAFE) standards set by the U.S. National Highway Traffic Safety Administration. CAFE standards were recently strengthened under provisions of the Energy Independence and Security Act. Under the new Act, the fuel economy of the combined sales of a manufacturer's cars and light trucks must achieve an average in 2020 of 35 miles per gallon (6.72 litres/100km).6

The state of California has approved regulations to reduce greenhouse gas emissions from new motor vehicles.7 The regulations specify a “fleet average” emission standard. In other words, each fleet or group of vehicles that have the same model year, manufacturer and weight category must have average emissions that are equal to or lower than the standard.

Seventeen U.S. states have adopted or are in the process of adopting these standards and regulatory approach, with additional states actively considering adoption. Taken together, these states represent over 60 per cent of the U.S. auto market. In Canada, the province of Quebec is currently making final revisions to draft regulations instituting the standards.

Analysis conducted by the California Air Resources Board (CARB) indicates that the California tailpipe GHG standards will achieve significantly greater GHG reduction benefits than CAFE standards.8 CARB has also commissioned analysis indicating that manufacturers can meet the 2016 standards with no change in the mix of models offered for sale, using technologies that are already available or under development – without compromising performance, reliability or safety.

Standards under the new B.C. Act would reduce GHG emissions for an average new car relative to 2008 models by about 22 per cent in 2012 and 30 per cent in 2016. By 2016, the standards are projected to achieve a reduction of personal vehicle GHG emissions of nearly 600,000 tonnes annually in B.C. This projected reduction is over and above reductions expected from U.S. adoption of increased fuel efficiency standards (the new CAFE standards) and current Canadian federal government commitments.

Because the standards apply on a fleet average basis, manufacturers will be able to comply with the legislation by selling enough low GHG emission vehicles to meet average fleet

www.livesmartbc.ca/attachments/climateaction_plan_web.pdf
7 See California Air Resources Board website and links: www.arb.ca.gov/cc/factsheets/cc_newfs.pdf
8See:www.arb.ca.gov/cc/ccms/reports/final_pavleyadden dum.pdf
requirements, while still being able to sell higher emitting vehicles.

The standards will accelerate the broader adoption of clean technologies, resulting in significant fuel cost savings for drivers. On average, in 2016, consumers will save approximately $5,000 in fuel costs over the life of a new vehicle (based on fuel at $1.40/litre). These savings will pay back any increases in vehicle costs in about two years.

MINISTRY INTENTIONS

3. Scope of the Regulation

Regulation under the Greenhouse Gas Reduction (Vehicle Emissions Standards) Act will set GHG emission standards for new light duty vehicles being sold in British Columbia, equivalent to those required in California.9

Requirements under the regulation will apply to vehicle manufacturers (not retailers or vehicle purchasers). As discussed further in section 6.2, the regulation may also apply to other persons (e.g., marketing affiliates of the manufacturer) who have a presence in B.C.

The Act also enables regulatory requirements for zero emission vehicles in vehicle fleets however this element of the regulation is not being developed at this time. Accordingly, input is being sought only on the GHG aspects of the regulation.

4. Fleet-average GHG Emission Standards

The Act provides regulation-making power to establish the following key elements of the California regulation and standards:

- Beginning with the 2009 model year, light duty vehicle manufacturers are required to meet prescribed annual fleet average GHG emissions standards;
- Fleet average GHG emission standards become increasingly more stringent annually (by model year) until 2016;
- Manufacturers will generally have two fleets for each model year based on weight classes of vehicles: 1) passenger cars/small trucks; and 2) larger trucks/sport utility vehicles/vans;
- Manufacturers are categorized by sales volume and smaller manufacturers have access to less stringent alternative fleet standard requirements;
- Manufacturers are able to earn “credits” if their average fleet emissions are below the applicable standard, and have five years to use credits to match the amount that a fleet exceeds the fleet average standard;
- Credits may be applied by a manufacturer across its two fleets and across different model years (for up to five years) – credits are also be transferable (i.e., they may be sold to other manufacturers); and
- Standards for fleet averages are based on actual emissions from vehicles, with adjustments to reflect emissions from air conditioning and upstream emissions of any alternative fuel vehicles used in the fleet.

A summary table of California’s vehicle emissions standards is included in Appendix B of this intentions paper.

5. Compliance and Enforcement

The Act and proposed regulation will require manufacturers to submit an annual report to the ministry documenting the fleet-average GHG emissions of each of their vehicle fleets (for the preceding model year) and the generation and transfer of any associated credits.10 Manufacturers will also be required to submit a compliance report to the ministry for each model year (due five years after the annual report for that

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9 California's vehicle tailpipe GHG regulation applies to passenger cars and light duty trucks 8500 pounds or less, and medium duty passenger vehicles up to 10,000 pounds.

10 The first annual report (documenting figures for the first applicable model year) would be required in the year following the regulation’s implementation.
model year) documenting compliance with applicable standards.

Under the new Act and regulation, an automatic administrative penalty will apply to a manufacturer that does not comply with the applicable fleet average GHG emission standard. Manufacturers would face an automatic penalty – a financial penalty per vehicle – based on a formula that considers the number of vehicles delivered by a manufacturer, the applicable standard and the extent to which the manufacturer’s fleet is out of compliance.\(^{11}\) This penalty would only be payable at the end of the five year compliance period if the manufacturer has not remedied compliance by applying sufficient credits from other years, manufacturers and fleets.

The ministry will be able to impose an administrative penalty in relation to matters such as late or inaccurate reporting. An administrative penalty equivalent to the automatic administrative penalty could also be applied where a manufacturer has failed to report or reported inaccurately – and the ministry is satisfied that the manufacturer is not meeting its fleet average GHG standard.

An offence under the new Act (consistent with other B.C. legislation) includes: failing to submit annual or compliance reports; providing false or misleading information; obstructing or resisting the director or inspector (as defined under the Act); failing to comply with direction given by the director or an inspector; or disclosure of protected information.

6. Technical Discussion Issues

The ministry is seeking specific comment on a number of “technical” issues related to development of the regulation under the new Act. These issues are discussed in the subsections below.

6.1 Vehicle emission testing procedures

California legislation requires vehicle manufacturers to certify using California test procedures – which in turn incorporate U.S. federal test procedures.\(^{12}\) These certification processes and results may be different than federal Canadian procedures – as reported in Natural Resources Canada’s Fuel Consumption Guide ratings. The ministry is seeking information on the extent of vehicles sold in B.C. that may not belong to a GHG test group certified in California or by the U.S. EPA. The Natural Resources Canada Fuel Consumption Guide, for example, may be a viable additional information source for B.C. to reference.

6.2 Regulated parties

The California regulation applies exclusively to vehicle “manufacturers”. Draft Quebec regulations create a hierarchy of regulated parties – from the manufacturer or person entitled to use the manufacturer’s trademark or distinctive sign in Quebec, to the franchise holder, to the retail dealer. Since vehicles may be imported into B.C. by legal entities other than the vehicle manufacturer, the Quebec approach may be worthwhile to follow. Rather than focusing on who is entitled to use the trademark, the B.C. regulation could focus on affiliates of the manufacturer who market and distribute in the province. B.C. is seeking comment on the practicality and effectiveness of following Quebec’s lead in regulating dealers in the situation of very small manufacturers where no other company “closer to the manufacturer” has a corporate presence in B.C.

\(^{11}\) The California regulation and Quebec’s draft regulation set a penalty of $5000 per vehicle.

6.3 Technical approvals

In California, the Executive Officer of the California Air Resources Board (CARB) has the discretion to issue a variety of approvals to manufacturers based upon technical demonstrations, evaluations and/or submitted data. The new B.C. Act enables regulations that would allow B.C. to rely on CARB determinations for some purposes (e.g., air conditioning direct and indirect emissions allowance), while enabling some B.C.-specific technical approvals (e.g., availability of fuelling infrastructure for alternative fuel vehicles).

The new Act also enables regulation to allow the ministry to charge fees to manufacturers to recover costs where advice by an independent third party is required.

6.4 Categorization of manufacturers by sales volume

California regulation has defined categories for low, independent low, intermediate and large volume manufacturers based on sales of vehicles in California – and associated requirements for each category to meet vehicle emissions standards. The fleet average GHG requirements in the B.C. regulation could apply equally to all manufacturers or include the same four categories. If the latter, B.C. could categorize manufacturers as per California, or classify manufacturers based on sales volumes in B.C.

The choice of approach will be based on effectiveness in achieving GHG reduction objectives, fairness and practicality.

6.5 Confidentiality of information

The new Act sets out requirements to protect the confidentiality of potentially sensitive information obtained by government from manufacturers while respecting the public’s right of access under the Freedom of Information and Protection of Privacy Act. Subject to this Act, government staff must keep certain information obtained from manufacturers confidential.

However, this confidentiality provision does not apply to information pertaining to: manufacturers’ fleet averages or choices of optional emission standards; emissions values for different types of vehicles sold by a manufacturer; credit generation and transactions; and compliance with fleet emission standards.

Provision can be made in regulation to exclude specific information from confidentiality requirements, or to specify information that must be made public. For instance, manufacturers will need to report to government the numbers of each type of vehicle with a distinct emission value that the manufacturer has delivered for sale or lease in B.C. Unless specified by regulation, this information must be kept confidential.

7. Providing Comment

Comments regarding the intentions of the ministry are being solicited. Following review of comments and submissions, the ministry will complete legal drafting of the regulation.

Comments received will be treated with confidentiality by ministry staff and contractors. Please note that the comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information request is made under the Freedom of Information and Protection of Privacy Act.

Those interested are invited to submit comments in writing to Cindy Bertram of C. Rankin & Associates, who has been contracted by the ministry, at:

Email: cindybertram@shaw.ca
Mail: PO Box 5293
Victoria, B.C. V8R 6N4
Fax: (250) 598-9948

Comments to the ministry should be made on or before September 26, 2008

Thank you for your time and consideration!
Appendix A: Acronyms and abbreviations used in this document

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>B.C.</td>
<td>British Columbia</td>
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<tr>
<td>CAFE</td>
<td>Corporate Average Fuel Economy</td>
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<td>CARB</td>
<td>California Air Resources Board</td>
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<tr>
<td>e.g.</td>
<td>for example</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>GHG</td>
<td>Greenhouse gas</td>
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<tr>
<td>i.e.</td>
<td>that is</td>
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</tbody>
</table>

Appendix B: California vehicle emissions standards

FLEET AVERAGE GREENHOUSE GAS EXHAUST MASS EMISSION REQUIREMENTS FOR PASSENGER CAR, LIGHT-DUTY TRUCK, AND MEDIUM-DUTY PASSENGER VEHICLE WEIGHT CLASSES (4,000 mile Durability Vehicle Basis*)

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Fleet Average Greenhouse Gas Emissions (grams per mile CO₂-equivalent)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All Passenger Cars; and Light Duty Trucks 0-3750 lbs. Loaded Vehicle Weight</td>
</tr>
<tr>
<td>2009</td>
<td>323</td>
</tr>
<tr>
<td>2010</td>
<td>310</td>
</tr>
<tr>
<td>2011</td>
<td>267</td>
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<td>227</td>
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<td>2014</td>
<td>222</td>
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<tr>
<td>2015</td>
<td>213</td>
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<tr>
<td>2016+</td>
<td>205</td>
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</tbody>
</table>

Notes:
“Durability Vehicle Basis” means the number of miles during which the test vehicle used by a motor vehicle manufacturer to certify to the prescribed exhaust emission standards must maintain those standards.

California’s vehicle tailpipe GHG regulation applies to passenger cars and light duty trucks 8500 pounds or less, and medium duty passenger vehicles up to 10,000 pounds.

The source document for this table, and additional information, can be found at: www.arb.ca.gov/msprog/levprog/cleandoc/cleancomplete_lev-ghg_regs_6-08.pdf