Changing Idling Behaviour at the VPD:
Vancouver Police Department’s Idle Management Program

Erin Rennie
Greenest City Scholar, 2013

3585 Graveley Street
Vancouver, BC
V5K 5J5
This document is the property of the Vancouver Police Department and may contain proprietary information. This document shall not be duplicated, disseminated, disclosed, or reclassified without prior consent of the Vancouver Police Department. This document may be used by the authorized recipient solely for purposes related to law enforcement.
Acknowledgements

I would like to thank the following people for their assistance in completing this report. These people have contributed significantly to the VPD and the City of Vancouver and I value their time and expertise in helping me to conduct my research.

Dawna Marshall-Cope, Senior Director Information Services, VPD
Kelly Risebrough, Police Constable, VPD
Rob Rothwell, Fleet Manager VPD
The Planning, Research & Audit Section, VPD
Amy Fournier, Sustainability Coordinator, City of Vancouver
Jennifer Richards, City of Vancouver
Bill Ng, Building Supervisor, City of Vancouver
Brad Stephenson, Kennel Attendant, VPD
Amy Sidwell, Equipment Manager, City of Vancouver
Simon Demers, Audit Manager, VPD
Krista Grevstad, Clerk Typist III, VPD
Mike LeNoble, Clerk Typist III, VPD
Jennifer Mayberry, City of Vancouver
Katie O’Callaghan, 2012 Greenest City Scholar, VPD
Dr. Mark Stevens, Faculty Supervisor, UBC
Sandra Glendenning, Police Constable, VPD
Leslie Ng, Sustainability Coordinator, City of Vancouver
Contents

I. Introduction
II. Background
   a. Idling and the VPD
   b. VPD Idle Management Program
   c. IdleRight2
   d. Changing Idling Behaviour
III. Research Design
   a. Question
   b. Objectives
   c. Methods
   d. Limitations
IV. Focus Group Findings
V. Recommendations
   a. Training
   b. Communications
      i. Internal
      ii. External
   c. Rewards and Role Modeling
   d. Monitoring and Evaluation

List of Appendices

A. Change Management Best Practices
B. Change, Transition, and Communications Plan
C. External Posters
D. Internal Posters
E. Parade Bulletin Sample Text
F. Idling Key Messages/Speaking Notes
G. Social Media Sample Content
H. Idling Workshop Power Point
I. Onboard Decal Sample
J. Competition Sample “Idle Bucks Challenge”
K. Focus Group and Interview Template
Introduction

The VPD is committed to being a law enforcement leader in environmental sustainability. The VPD 2012-2016 Strategic Plan sets out a number of goals for all members of the organization to achieve. Within the VPD’s Community Focus Goals there is a section titled “Manage resources in an environmentally sustainable manner.” Over the next five years the VPD will continue to engage staff in its efforts to be more sustainable within operational limitations. The VPD will work towards minimizing its carbon footprint by focusing on reducing, reusing, and recycling as well as using innovative methods to better utilize resources through the Code Green Program.

The VPD Idle Management Program will work towards these department-wide goals of managing resources in an environmentally sustainable manner by using new technology and behavior change methods to reduce the extent to which VPD patrol officers idle police vehicles. Idle reduction will improve VPD fuel efficiency while reducing harmful carbon emissions.

This report outlines the goals and actions to be undertaken as part of the Idle Management Program. By using change management best practices, the VPD can successfully implement the new idle management technology (IdleRight2), along with new driving practices to achieve high compliance. Consultation with VPD patrol officers has been an important part of planning the Idle Management Program. Recommendations in this report were made on the basis of feedback from the patrol officers who will be most impacted by this practice change. Changing driving practice to reduce vehicle idling will be a major transition for some officers but by engaging employees at every stage of the process, listening to feedback, and role modeling sustainable behaviours, the VPD can achieve their goal of fostering a culture of sustainability within the organization.

Background

Idling and the VPD
Patrol officers idle their vehicles for many of the same reasons all Canadians idle their vehicles: habit, comfort, and myth. But unlike other Canadians, police officers have had an additional reason to idle: Police Operational Needs (Figure 1). Police officers require the use of many electronic accessories to perform their duties including the light bar, the computer dock, and the radio. Patrol officers use their vehicles as an office and, like any employee, to be effective their tools must work. When an officer is stopped they usually keep the engine running for a number of reasons, one of which is so that they can operate their electronic accessories without risking running down the vehicle battery.

It is not uncommon, VPD officers have reported, to run down the vehicle battery because the officer driving left the light bar running while at a call. When this happens the officer has to
have their vehicle jumpstarted or towed – an experience which is both operationally problematic and very embarrassing for the officer. The need to keep the computer battery charging is an extremely important reason to keep the engine running throughout a shift. The VPD vehicle laptop batteries drain quickly, and if this happens while the officer is writing a report, all the data can be lost.

Experiences with both dead computer batteries and dead vehicle batteries has led to a vehicle idling practice which is deeply ingrained among VPD patrol officers. The fear of dead batteries is so ever-present that officers idle when it is unnecessary to do so. Because of operational necessity, police vehicles are exempt from section 2.7 of the City’s Motor Vehicle Noise and Emission Abatement Bylaw 9344 which prohibits idling a stopped vehicle for more than 3 minutes.

The desire for comfort and need for safety contribute to police vehicle idling. Some patrol officers report that they idle because they get very warm in their protective gear and require the air conditioning. Also, patrol officers perceive situations to be safer when the engine is running because they can more quickly drive away from a dangerous situation. Myth also contributes to idling behavior. Like many drivers in Canada, some patrol officers believe that starting and stopping a vehicle actually wastes more fuel than letting it idle – a misconception which is no longer true for modern vehicles.

In her 2012 report *A Study on VPD Patrol Officers’ Idling Behaviour* Greenest City Scholar Katie O’Callaghan investigated the situations, frequencies, reasoning, and time of day that VPD officers idle. She found that “VPD Patrol officers tend to idle more in stopped circumstances to address personal and convenience related matters” (O’Callaghan, 9). She found that officers idle the least when responding for a “call for service,” possibly because officers prefer to not have the noise of the vehicle running while they are talking to members of the public. Data from the 2012 study revealed that “officers idled for short periods of time [less than 5 minutes] but frequently” (O’Callaghan, 9).

The combination of desire for comfort and safety, fear of dead batteries, misconceptions about idling, and pure subconscious habit, has created a vehicle idling practice which is wasteful and damaging to VPD vehicles, VPD reputation, and the environment. Unnecessary idling creates additional wear on the vehicle and shortens its lifespan. Although the City’s idling bylaw does not apply to VPD vehicles, members of the public have complained to the VPD about idling VPD vehicles in public spaces because of the noise and exhaust idling causes.

Idling vehicles unnecessarily harm air quality by emitting volatile organic compounds (VOCs), carbon monoxide (CO) and oxides of nitrogen (NOx). These gases pollute the air we breathe and create harmful smog. In addition idling vehicles unnecessarily emit greenhouse gases (GHG) which contribute to climate change. The VPD fleet emits approximately 2700 tonnes of CO2e every year which represents 72% of the VPD’s total GHG emissions. The majority of fuel consumption and GHG emissions are from patrol vehicles specifically. VPD vehicles account for 18% of the City of Vancouver’s total fleet and equipment operations GHG emissions.

A number of strategies are being used across the City of Vancouver to reduce emissions and cut fuel consumption including trip planning and right-sizing vehicles but one of the simplest ways to reduce GHGs is to simply cut out unnecessary idling.
VPD Idle Management Program
The VPD Idle Management Program seeks to address both the technological reasons (police operational needs) and the socio-psychological reasons (habit, comfort, myth) for VPD vehicle idling. The program consists of the purchase of idle management technology (IdleRight2) in combination with a department-wide idle reduction campaign consisting of training, internal messaging, media events, community engagement events, and friendly competition.

IdleRight2
The IdleRight2 device monitors the battery’s voltage while the vehicle is turned off and the lights and electronic equipment are still on. If the voltage of the battery drops below 11.75-12 Volts, the IdleRight2
The IdleRight2 will trigger the Remote Starter to idle the vehicle. The system then runs the engine until the battery is charged and then the Remote Starter turns the vehicle off. The IdleRight2 device can cycle the battery automatically indefinitely leaving the officer free to concentrate on policing.

The IdleRight2 will eliminate the need to idle for the purposes of police operational needs. The patrol officer will be able to run all electronic accessories while the engine is off without fear of running down the vehicle battery.

The replacement of the VPD fleet with the new Dodge Charger staring in October 2013 provides the VPD with the perfect opportunity to implement the IdleRight2 technology. Between 2013 and 2016 the entire VPD fleet will be replaced with 173 Dodge Chargers equipped with IdleRight2 technology.

The VPD is hoping to reduce fuel consumption by 10% in 2013 through a multi-pronged strategy including a 5% reduction in patrol vehicle idle time. Already the VPD’s efforts to green the fleet have been successful with a 9.5% reduction in emissions in 2012. It is estimated that the Idle Management Program will contribute the VPD’s goal of 35% fleet emission reduction by 2020.

### Table 1: Green Operations Year to Date Fleet Emissions (July 2013) from 2007 levels

<table>
<thead>
<tr>
<th>Fleet GHG emissions</th>
<th>YTD (July 2012) tCO2e</th>
<th>YTD (July 2013) tCO2e</th>
<th>2012/2013 Difference tCO2e</th>
<th>2012/2013 Difference tCO2e (%)</th>
<th>2012 Reductions to date (%)</th>
<th>2020 Target (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Services</td>
<td>5,679</td>
<td>5,485</td>
<td>-194</td>
<td>-3%</td>
<td>-8.20%</td>
<td>-26%</td>
</tr>
<tr>
<td>Fire &amp; Rescue Services</td>
<td>455</td>
<td>381</td>
<td>-74</td>
<td>-16%</td>
<td>2.20%</td>
<td>-33%</td>
</tr>
<tr>
<td>Parks &amp; Recreation</td>
<td>840</td>
<td>773</td>
<td>-67</td>
<td>-8%</td>
<td>-19%</td>
<td>-34%</td>
</tr>
<tr>
<td>Police Services</td>
<td>1,532</td>
<td>1,492</td>
<td>-40</td>
<td>-3%</td>
<td>-9.50%</td>
<td>-35%</td>
</tr>
<tr>
<td>Vancouver Public Library</td>
<td>27</td>
<td>23</td>
<td>-4</td>
<td>-15%</td>
<td>-32%</td>
<td>-61%</td>
</tr>
<tr>
<td>Other</td>
<td>78</td>
<td>71</td>
<td>-7</td>
<td>-9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8,611</td>
<td>8,225</td>
<td>-386</td>
<td>-4%</td>
<td>-9.50%</td>
<td>-30%</td>
</tr>
</tbody>
</table>

### Changing Idling Behaviour

With the IdleRight2 device installed in the new patrol vehicles, officers will no longer need to idle their vehicles for police operational needs. However, there will still be habits, comfort, and myths motivating them to continue idling vehicles. The IdleRight2 technology creates many opportunities for officers to transform current idling habits. If officers continue with status quo behaviours the VPD will see less return on investment.
For this reason a multi-faceted training and education approach is necessary to ensure that the new technology is utilized to foster a culture of sustainability throughout the entire organization.

The objective of this research has been to create a change management plan in relation to idling behavior within the VPD. By integrating behavior change in conjunction with technology change the VPD will be able to reduce fleet emissions and demonstrate their commitment to the City of Vancouver’s Greenest City Goals.

Research Design

Research Question
This study seeks to understand how the VPD can best change idling behavior at the VPD? This question will be addressed by examining both the best way to change behaviour and the best way to introduce idling technology at the VPD.

Research Objectives
The objectives of this research are to:

- Develop a strategy for implementation of the Idle Management Program
- Understand Best Practices and means of implementing change in police departments
- Identify barriers that prevent staff from participating in sustainability initiatives
- Develop Best Practices for behavior change specifically related to idling

Research Methods
The methods used in this study were literature review, focus groups, patrol ride alongs, and interviews.

A literature review of change management theory and sustainability change management was conducted including works by Doug McKenzie-Mohr, James M. Hart, Rick Michelson, and Bob Doppelt.

A series of focus groups were conducted to elicit the feelings, experiences, and concerns of VPD members regarding the Idle Management Program. Four focus groups were conducted. The focus groups were about 30 minutes long and were conducted with groups of varying sizes. In total 20 officers participated, most of whom were constables but there were also a few sergeants and one inspector as well. All the focus group participants were either current patrol officers or had experience driving patrol vehicles.

Interviews were also conducted with individuals to understand the role they played in police culture change management or in the VPD Idle Management Program. These interviews included: Constable Kelly Risebrough, Former Chief Constable Bob Stewart, Fleet Manager Rob Rothwell, and Inspector Joanne McCormick.

One Ride Along was conducted with a District 3 unmarked vehicle. The researcher observed idling behaviour and typical driving conditions for VPD members during an afternoon shift.

Focus Groups and Interviews were semi-structured and included opportunities for subjects to ask questions, make suggestions, and voice opinions.
Limitations
This study is limited by a number of scheduling constraints. A condensed study period meant that fewer focus groups and interviews than ideal could be conducted. It would have been preferable to get feedback from patrol officers from each of the four Districts because each District has very different geography and transportation infrastructure. Many VPD officers interviewed noted that driving and idling patterns changed depending on the District.

The VPD Fleet Manager was in the process of getting the new vehicle approved by the various channels while this study was being conducted. As a result, there are many unknown components of the Idle Management Program making the development of a Change Management Plan challenging. For instance at the time of writing it was unknown when the new Dodge Chargers would be delivered to the VPD. It is also unknown how exactly the IdleRight2 will be wired in the vehicle. This limits the specificity of the training materials which can be prepared.

Findings

The following key themes emerged through the process of the research:

- Keep sustainability messages positive
- Avoid Directives (don’t say don’t)
- The idling habit develops from the experience of losing operational capacity of tools
- Younger officers are more comfortable with change and with sustainability
- Adults don’t like being told how to do their jobs
- Officers have to be able to do their jobs
- Online information overload: Parade is the best way to train
• Reminders are helpful but shouldn’t be annoying or patronizing
• There is interest in hearing about results and data
• Members are open to sustainability and supportive of Code Green
• Make the change process simple and painless; the less thinking required the better

Recommendations

IdleRight2 Installation

1) Wire the IdleRight 2 so that it is the Default Setting: When the patrol officer turns on the vehicle the IdleRight2 device should activate automatically. The driver should not have to hit any additional button to activate the device (as they do in the Fire Service vehicles). There should be a deactivate button so the driver can temporarily disable the device for specific operational purposes (during stealth situations for instance). However, the default should be to have the IdleRight2 always active to reduce the steps the officer must take to make use of the technology. This recommendation was made frequently by VPD patrol officers interviewed as part of this study.

2) Onboard Decals: Small decals reminding drivers not to idle should be affixed to the dashboards of every new Dodge Charger. These decals should be green and easy to read. An example of such a decal has been included in Appendix H.
Training

3) **Train Patrol Officers at Parade in the Fall of 2013:** One person should be responsible for delivering IdleRight2 training during Parade for all patrol officer teams. Interviewees and focus group participants repeatedly suggested that parade is the best time to introduce new information to patrol officers because they are alert at this time and are not likely to be distracted. Email and web-based information is not often read due to information overload. Parade is a good time to train officers because the group is small enough that they have an opportunity to ask questions and voice concerns. This training should be in addition to the Fleet Manager’s Vehicle Orientation Session. A sample Parade Bulletin is attached in Appendix E.

4) **Fleet Manager Should Highlight the IdleRight2 during the Dodge Charger Orientation:** The Fleet Manager has already committed to providing VPD patrol officers with a short orientation to the new vehicles. During this orientation the Fleet Manager should point out the IdleRight2 device as a key feature amongst a suite of other technological features.

5) **Make Sustainability a Component of New Recruit Training:** New VPD recruits should be introduced to the VPD’s sustainability initiatives as part of the VPD Strategic Plan during the training period. This training should include an overview of the IdleRight2 device and the importance of reducing vehicle idling. By building sustainability into the training of new VPD recruits a culture of environmental consciousness and sustainable practices will be begin to grow at the VPD.

Communications

6) **Develop a Multi-Platform Internal Communications Campaign to Promote Idle Reduction:** Using posters, email, the Code Green Blog, the Fleet Blog, and the Blue Zone Website it is recommended that the VPD promote changes in idling behaviour to patrol officers by using the following key messages (Appendix B):

   1. Through the use of IdleRight2 technology VPD Patrol Officers will never face another dead battery again.
   2. The IdleRight2 is an advanced technological feature which will enhance professional performance.
   3. The IdleRight2 will enable VPD Officers to demonstrate environmental leadership to the broader community.
   4. The IdleRight2 will allow drivers to turn the engine off while the electronic accessories are running without the risk of running down the battery.

Sample posters, blog posts and email text can be found in the Appendices.

7) **Externally-Directed Poster Campaign:** Enlarge and distribute posters about the VPD’s Idle Management Program in and around VPD buildings. These posters should be targeted towards the public and should emphasize the VPD’s interest in being a part of community efforts to protect the environment. Display these posters in VPD buildings that are open to the public such as lobbies and reception areas. A sample poster has been included in Appendix B.

8) **Publicize the VPD’s Sustainability Efforts on Social Media:** VPD Public Affairs should highlight the Idle Management Program along with other sustainability efforts through the VPD’s official social media. This will raise the VPD’s profile and encourage a broader public understanding. VPD social media should portray VPD officers as role models demonstrating how officers utilize...
the IdleRight2 to reduce emissions. Code Green web content should be forwarded to Constable Sandra Glendenning and Communications Coordinator Laurel Kennedy who are eager to promote the VPD’s sustainability efforts to the wider community. Coordinate with City of Vancouver’s Social Media staff to ensure they retweet VPD’s tweets. Sample Social Media Tweets, Hashtags, and Facebook posts have been included in Appendix G.

9) **Showcase the New VPD Fleet and IdleRight2 in a Second Media Event:** Chief Constable Chu and Mayor Robertson should continue to promote the new Dodge Charger to the media and highlight the environmental benefits including the Idle Management Program. This will raise the profile of the VPD in the community and contribute to the sense of pride VPD members feel towards the organization. This media event will also inform the public that the VPD is serious about reducing their idling while at the same time ensuring that the public knows that the VPD is exempt from the municipal idling bylaw.

10) **Participate in a Community Environmental Event:** The VPD should showcase the new Dodge Charger at a community environmental event or celebration such as Earth Day or Earth Hour. Officers should have an opportunity to showcase the vehicle and describe the environmental benefits to members of the community. This could be modeled after BC Hydro’s Team Power Smart interactive displays at community events and celebrations. This initiative will raise the profile of the VPD in the community and give VPD members the opportunity to feel proud of the work the VPD is doing to reduce environmental impacts.

11) **Parking Lot Prompts:** The City of Vancouver is willing to provide permanent “Idle Free Zone” signs to the VPD. It is recommended that these signs be installed in VPD parking areas around VPD sites especially the Fleet Kiosk and at 2120 Cambie. These signs will serve to prompt officers
to reduce idling in places where it is unnecessary to do so and in situations where it is easy to forget to turn off the engine.

**Rewards and Role Modeling**

12) **Demonstrate Committed Leadership:** It’s important for VPD leadership to understand and promote the reduction of idling behavior. VPD employees holding rank or serving in leadership roles should be knowledgeable about the Idle Management Program and demonstrate their commitment. It is very important that VPD leadership to maintain a positive and constructive attitude towards the Idle Management Program and other Code Green initiatives. Committed leadership can be the defining factor in successful organizational change.

13) **Make Funding Available for Team Building Activities and Prizes:** Many patrol officers noted that fun and humour were important in successfully implementing change. It is recommended that the VPD hold a department-wide competition or challenge to encourage the reduction of unnecessary idling once the majority of the fleet has been replaced. A sample activity entitled “Idle Bucks Challenge” has been developed and is attached in Appendix J. The use of a game, if well executed, can tap into the competitive, jocular culture amongst patrol officers and use it to quickly break the idling habit while promoting team building. Patrol officers have noted that changes that are implemented in a fun and humourous way are more memorable and the change is longer-lasting than changes that are implemented through policy or directives alone.

14) **Celebrate Achievements in Emission Reduction:** Annually the VPD should report back to VPD members about achievements in sustainability metrics (idle reduction, waste diversion etc.). These achievements should be marked by some kind of celebratory event such as an Earth Day Family Picnic organized by the VPD. An annual celebration and sustainability update event will let VPD members know that their efforts are being recognized and will put sustainability into a positive light.

**Monitoring and Evaluation**

15) **Develop and Implement a Comprehensive Monitoring and Evaluation System and Report Back to VPD Employees and the Public:** There are a number of ways to measure the effectiveness of the Idle Management Program. **Idle Hours Saved** can be measured for each vehicle by using the IdleRight2 Device in each car. **Idle Time** can be measured by downloading telematics information from the vehicle’s onboard computer system. **Fuel Consumption** and **Fuel Efficiency** can be measured by recording fuel use, vehicle mileage, and date at the fuel yard. Finally, the 2012 Greenest City Scholar Report on Idling Behaviour used an on-board recording method for measuring the following idling behaviours: **Idling Situations, Circumstances, Frequencies, Reasoning**, and **Time of Day**.

These metrics for measuring reduction are evaluated below:

a) **Idle Hours Saved**

The IdleRight2 can measure how many idle hours the device has saved the vehicle. On top of the IdleRight2 Device there is a green light and a red light. Counting the number of times these lights flash while on HRS Mode the VPD Fleet Manager can determine the number of idle hours saved (up to four digits). Once counted, this number can be used to determine the fuel and
maintenance savings at www.idleright.com. This metric is time-consuming and must be applied to each vehicle individually.

b) Idle Time
The City of Vancouver Equipment Services Department can monitor the effectiveness of the Idle Management Program by downloading telematics information from the car’s on-board computer system. This is a more efficient method which will generate more kinds of data for analysis.

c) Fuel Consumption and Fuel Efficiency
When VPD vehicles fuel up at the Manitoba Fuel Yards the date, mileage, and fuel volume dispensed is recorded. Dividing fuel used by kilometers travelled can yield the fuel efficiency. This is already measured by the City of Vancouver and can be used to compare against VPD vehicles after the installation of the IdleRight2. This method is effective but it is impossible to know what portion of fuel consumption and fuel efficiency change can be attributed to changes to idling behavior instead of other factors such as trip planning or right-sizing vehicles.

d) Idling Situations, Circumstances, Frequencies, Reasoning, and Time of Day
In 2012 Greenest City Scholar Katie O’Callaghan conducted a study of VPD patrol officers by observing and recording idling behavior during a series of ride alongs. Her study could be conducted a second time using the same methods and metrics to determine if VPD members have changed their behaviour since the installation of the IdleRight2. This method generates highly detailed data about idling behavior specifically but it is very time-consuming.

It is recommended that changes in Idle Time, Fuel Consumption and Fuel Efficiency be measured and analyzed on a monthly basis after the implementation of the Idle Management Program. Analysis should include GHG emission reductions as well. These numbers should be distributed to VPD members monthly via the Code Green Website and via e-parade so that they can see the impacts of their changed behavior. On an annual basis a more thorough analysis should be conducted to measure the success of the program and to measure GHG emission change over 2007 levels. In 2016, once the entire VPD patrol fleet has been replaced with Dodge Chargers a study of Idling Situations, Circumstances, Frequencies, Reasoning, and Time of Day should be conducted using the same methods as the 2012 Greenest City Report. Idling behaviours can
then be compared to see if officer behavior has changed as a result of the new Idle Management Program.

Conclusion

Many VPD patrol officers are aware that they idle their vehicles extensively during their shifts. Although these officers are concerned about environmental issues, until now there hasn’t been an alternative to idling. Police vehicles and all the electronic accessories on board must work in order for officers to properly do their work of keeping Vancouver safe. These police operational needs contribute to idling behavior, but police officers also idle for the same reasons every Canadian idles: comfort, habit, and myth (Figure 1). The VPD’s Idle Management Program will address all of these idling factors.

The Idle Management Program has a technological component and a behavior change component to fully address all the reasons VPD members idle. To address the police operational needs the VPD is investing in IdleRight2 technology which will allow the electronic accessories to operate while the engine is off. To address issues of comfort, habit and myth, the VPD must invest in a series of behavior changing activities such as training, communication, role modeling, monitoring, and evaluation.

Consultations with VPD members and staff have revealed insights into the best ways to promote idling behavior change in this particular organizational culture. Focus groups, interviews, and literature reviews have contributed to the recommendations made in this report. Feedback from the VPD members has aided in the development of a Change, Transition and Communication Plan which is attached in Appendix B. This plan sets out the risks and opportunities this change will create, a timeline for change activities with assigned responsibilities, as well as a communications plan. This change plan should be updated regularly as more information becomes available and used as a guide to ensure that important components of the change management process are not overlooked.

Change can be challenging but it can also be exciting. VPD members are excited about the new patrol vehicles and the many technological advances it features including the IdleRight2. Many VPD officers have expressed an interest in more ecologically-sensitive practice but believe that police operational needs prevent them from living their values on the job. With the Idle Management Program these officers have an alternative to idling patrol vehicles. This is an important milestone in the Vancouver Police Department’s longer term Strategic Plan to manage resources in an environmentally sustainable manner and build a culture of sustainability at the VPD. If executed well the VPD Idle Management Program has the potential to not only reduce VPD’s emissions but to spark an interest in sustainability across the department as well. If the transition to reduced vehicle idling is a positive experience it will pave the way for many other sustainability efforts in the future.
References


Change Management Coach: Change Management Models

ADKAR: Simple, Powerful, Action Oriented Model for Change


The Management of Change in Police Organizations. James M. Hart.
https://www.ncjrs.gov/policing/man199.htm


Zero Waste VDP
(or “Learn to be a Recycling Ninja!”)

Erin Rennie
Greenest City Scholar, 2013
VPD Members are Role Models
VPD Employees Care about Community
Our Employees Want a Greener VPD
Waste Diversion: Alternative to Landfill
How does the new Zero Waste Program Work?
Deskside Blue Box
Zero Waste Streams

- Soft Plastics
- Mixed Paper
- Mixed Containers
- Landfill
- Organics
- Cans and Bottles
- Batteries
Soft Plastics

- Plastic Bags
- Plastic Cling Wrap
- Plastic wrappers
Mixed Paper

• Office Paper
• Cardboard
• Carton
• Boxes
• Egg Cartons
• Fast Food Wrappers
• Paper Cups (empty liquids!)
• Pizza Plates
<table>
<thead>
<tr>
<th>Mixed Containers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hard Plastic Containers</td>
</tr>
<tr>
<td>• Foil Containers</td>
</tr>
<tr>
<td>• Glass Containers</td>
</tr>
<tr>
<td>• Bottles and Cans</td>
</tr>
<tr>
<td>• Plastic Coffee Lids</td>
</tr>
<tr>
<td>• Plastic Cutlery</td>
</tr>
<tr>
<td>• Iced Drink Cups</td>
</tr>
<tr>
<td>• Yogurt Cups</td>
</tr>
<tr>
<td>• Milk Cartons</td>
</tr>
<tr>
<td>• Take-out Containers</td>
</tr>
<tr>
<td>• Plastic “Domes”</td>
</tr>
<tr>
<td>• Tetra Packs</td>
</tr>
<tr>
<td>• Aluminum Foil</td>
</tr>
</tbody>
</table>
Organics

• Anything that used to be alive
• Food scraps (includes meat and cooked food)
• Soft paper products (paper towel, napkins)
• Yard trimmings (wood, leaves, grass etc)
Bottles and Cans

EMPTY DRINK BOTTLES AND CANS
TO BENEFIT
CHILDREN’S VARIETY CLUB

SPONSORED BY PSC
Landfill

- Foil Wrappers
- Styrofoam
- Tape
- Plastic Straws
NO LIQUIDS
Batteries
Our Duty to Protect Includes the Environment
Best Practices for Change Management
Prepared for: Dawna Marshall-Cope and Kelly Risebrough
Prepared by: Erin Rennie

Change Management Definition:
- The process of taking a planned and structured approach to help align an organization with the change.
- Involves working with stakeholder groups to help them understand what the change means for them and to help them find ways to sustain the transition.
- Involves the organizational and behavioural adjustments needed to accommodate and sustain change.

Goal of Change Management
- To secure buy-in to the change and re-align individual behaviour and skills with the change.
- Change becomes institutionalized; the new normal.

Five Factors in Successful Change Management:
1. Planning - define objectives and means to achieve them
2. Defined Governance - clear organizational structure
3. Committed Leadership - lead by example
4. Informed Stakeholders - open and consultative communication
5. Aligned Workforce - recognize the human impacts

Best Practices
- Set a clear vision of what the future changed state will be and ensure that it is in line with the organization’s overall mission and vision.
- Communicate the rationale and expected impacts of the change.
- Write a Change Plan
- Measure, report, and celebrate progress.

A Change Plan Should Include:
1. The objectives to be achieved by the change
2. The agency’s proposed new direction, core business, structure and staffing arrangements to accommodate the change
3. How the change is to be implemented, including how the change will be communicated to the workforce and other stakeholders
4. The resources to be used, and the timelines
5. The relevant human resources principles and policies to be applied, particularly in relation to staffing issues
6. The means by which performance in the changed environment will be assessed in relation to the stated objectives; i.e. how the organization will know when it has achieved the desired change (Performance indicators and measures).

Classic Change Management Models
Unfreeze-Change-Refreeze (Kurt Lewin)
Stages of Change (Elisabeth Kubler-Ross)

Seven Habits Model (Stephen Covey)
ADKAR Model (Jeff Hiatt)
### ADKAR Model Applied to VPD

<table>
<thead>
<tr>
<th>ADKAR Model</th>
<th>Applied to VPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of the need for change</td>
<td>Blog, Newsletter, Workshop, Posters</td>
</tr>
<tr>
<td>Desire to support and participate in the need for change</td>
<td>Generate a desire to promote healthier planet</td>
</tr>
<tr>
<td>Knowledge of how to change</td>
<td>Change Management Plan and Workshop</td>
</tr>
<tr>
<td>Ability to implement the change</td>
<td>Technology</td>
</tr>
<tr>
<td>Reinforcement to sustain the change</td>
<td>Prompts such as parking lot signs</td>
</tr>
</tbody>
</table>

### Common Mistakes in Change Management
- Hasty Mis-starts
- Making Change an Option Only
- Focusing Only on Process
- Focusing only on Results
- Leadership Doesn’t Walk the Talk
- Size and Scope of Change Doesn’t Fit the Problem
- No Follow-Through (empty threats)
- Failing to Involve Stakeholders
- Delegating Change to Outsiders
- No Corresponding Change in Reward System

### Biggest Pitfalls in Sustainability Change Management

<table>
<thead>
<tr>
<th>Mistake</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patriarchal Thinking:</strong> Strict hierarchical and rules-based structures lead employees to abdicate personal responsibility.</td>
<td>Change the Dominant Mindset Through the Imperative of Achieving Sustainability</td>
</tr>
<tr>
<td><strong>Silo-Approach:</strong> Believing that sustainability is a stand-alone issue fails to recognize that the environment touches everything.</td>
<td>Organize Sustainability Transition Teams – Involve people from every functional department</td>
</tr>
<tr>
<td><strong>No Clear Vision of Sustainability:</strong> Failing to articulate what sustainability means leads to a watered-down approach with poor commitment.</td>
<td>Craft a Compelling Ideal Vision and Guiding Sustainability Principles</td>
</tr>
<tr>
<td><strong>Confusion over Cause and Effect:</strong> Focusing only on minimizing negative outputs like pollution/emissions/garbage, reflects a failure to see that the overall process is unsustainable.</td>
<td>Restructure the Rules of Engagement by Adopting New Strategies which Address Unsustainable Processes and Systems</td>
</tr>
<tr>
<td><strong>Lack of Information:</strong> Failing to explain the rationale, strategy, and expected outcomes of sustainability initiatives will result in low engagement.</td>
<td>Shift Information Flows by Tirelessly Communicating the Need, Vision, and Strategies for Achieving Sustainability</td>
</tr>
<tr>
<td><strong>Insufficient Mechanisms for Learning:</strong> Employees won’t change if there are no opportunities to experiment with new practices or if effort is not rewarded.</td>
<td>Correct Feedback Loops by Encouraging and Rewarding Learning Innovation</td>
</tr>
<tr>
<td><strong>Failure to Institutionalize Sustainability:</strong> If sustainability isn’t integrated into every part of an</td>
<td>Adjust the Parameters by Aligning Systems and Structures with Sustainability, Promotions and reward</td>
</tr>
</tbody>
</table>
organization it sends a message that there is no true commitment to the environment. systems should reflect an organization-wide commitment to sustainability.

Change Management for Sustainability (Keller and Aiken)

- People are irrational in predictable ways
- Tell more than one story at once to capture a diverse audience
- Let your audience tell their own story
- Small, unexpected rewards have disproportionate effects on employee motivation
- Pay careful attention to conducting a fair process

Resistance to Change and Adaptation

<table>
<thead>
<tr>
<th>Dimensions of Fear</th>
<th>Steps to Overcoming Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Loss of Comfort and Routine</td>
<td>1. Demonstrate the NEED for adaptation</td>
</tr>
<tr>
<td>2. Introduction of Uncertainty</td>
<td>2. Ensure staff get RETRAINED</td>
</tr>
<tr>
<td>3. Loss of Something Valuable</td>
<td>3. INCLUDE staff in the adaptation process</td>
</tr>
<tr>
<td>4. Loss of Power</td>
<td>4. Show that the impetus for change came from WITHIN</td>
</tr>
<tr>
<td>5. Loss of Status</td>
<td>5. When necessary, be authoritarian and use COERCION</td>
</tr>
<tr>
<td>6. Threats to Personal Esteem</td>
<td></td>
</tr>
<tr>
<td>7. Suspicion of Exploitation</td>
<td></td>
</tr>
<tr>
<td>8. Fear of Falling Behind</td>
<td></td>
</tr>
<tr>
<td>9. Absence of Perceived Rationale/Need</td>
<td></td>
</tr>
<tr>
<td>10. Past Experiences</td>
<td></td>
</tr>
</tbody>
</table>

Eight Step Process for Leading Change

1. Establish a Sense of Urgency
2. Create a Guiding Coalition
3. Develop a Vision and Strategy
4. Communicate the Change Vision
   a. Keep it simple
   b. Use metaphors/examples
   c. Use many vehicles to communicate
   d. Repetition
   e. Role modeling
5. Empower Broad Based Action
6. Generate Short Term Wins
7. Consolidate Gains and Produce more Change
8. Anchor New Approaches in the Culture
References


Change Management Coach: Change Management Models

ADKAR: Simple, Powerful, Action Oriented Model for Change


Have you seen?...

If so, return immediately to:

**“Calamity” Coffee Cup**

- Empty all liquid into the sink.
- Plastic Lid -> BLUE Mixed Containers bin
- Paper Cup and Sleeve -> YELLOW paper bin

**“Yucky” the Yogurt Cup**

- Rinse him out
- BLUE Mixed containers bin

**“Icky” Iced Drink Cup**

- Empty Liquid
- BLUE Mixed Container

**“Mucky” the Milk Carton**

- Empty all Liquid
- BLUE Mixed Container Bin

**“Poker Face” Paper Fast Food Wrappers**

- Napkin, paper towel, greasy paper products, wood chopsticks
- Remove all plastics and metals
- Green Organics Bin
CHANGE, TRANSITION AND COMMUNICATIONS PLAN

HIGH LEVEL STRATEGY DOCUMENT

Vancouver Police Department
Idle Management Program

Reviewed by: ________________________________
Dawna Marshall-Cope

______________________________
Kelly Riseborough

Author: Erin Rennie
Greenest City Scholar, 2013

Creation Date: August 6, 2013

Last Updated Date: August 2013
Purpose of Document:

The purpose of this document is to identify key change management, transition and communication risks and opportunities associated with the implementation of the VPD Idle Management Program, and the recommended high level strategies to address them. This document will be completed after the overall assessment tool has been discussed by members of the project team and change, and communication teams.

Project Overview and Objectives:

In the fall of 2013 the Vancouver Police Department will begin replacing the VPD patrol fleet with the Dodge Charger equipped with IdleRight2 idle management technology. This technology will enable VPD patrol officers to use their communication accessories while the engine is off, thereby reducing vehicle idling.

The purpose of this document is to map out the best way to change idling behavior at the VPD. Idle time reduction is one strategy being employed by the VPD to achieve their 2013 target of reducing VPD fuel consumption by 10% by the end of 2013 (2013/14 Departmental Action Plan). The VPD is working to reduce fuel consumption as part of their commitment to the City of Vancouver’s Corporate 2010 Green Operations Target of reducing fleet Greenhouse gas emissions by 40% of 2007 levels by 2020.

This document will lay out a communications and training plan to help VPD patrol officers change idling behavior. This plan has been designed to build on the existing corporate culture at the VPD and leverage the values, traditions, communities, and institutions VPD members share. By fostering a culture of sustainability, the VPD will ensure that their technological investment in idle management technology produces both financial and environmental returns.

Project Scope:

The scope of this project encompasses the five years it will take to replace the entire VPD patrol fleet, from 2013 to 2015. The range of activities proposed in this plan include educational and training activities, internal and public communications, reward structures, and evaluation methods.

Change Management Scope:

The Idle Management Program will affect how officers operate patrol vehicles, the vehicle operation training program, the work of the Public Affairs department, and the fuel consumption evaluation methods.
Appendix: Change, Transition, and Communications Plan

Change Management Complexity:

The Idle Management Program represents a low level of complexity for the Vancouver Police Department. There is a technological as well as a behavior change component but these are relatively straight forward.

Change Risks and Opportunities:

Change risks and opportunities have been identified here. More risks and opportunities may become known as time goes on which is why some blank spaces have been left open. The VPD Fleet Manager in conjunction with the Senior Director for Information Services should complete the Probability and Severity ranking section to gain an understanding of the magnitude of the risks of change.

<table>
<thead>
<tr>
<th>Potential Risks/Opportunity</th>
<th>Probability (H, M, L)</th>
<th>Severity (H, M, L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car battery drains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessories don’t work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrol Officers don’t use IdleRight2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Consumption doesn’t decrease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrol Officers dislike IdleRight2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IdleRight2 Malfunctions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patrol Officers are not properly trained</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Resistance to Change and Adaptation: Dimensions of Fear

<table>
<thead>
<tr>
<th>Dimensions of Fear</th>
<th>Anticipated Reactions to Idle Management Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Loss of Comfort and Routine</td>
<td>Idling is a comfortable habit</td>
</tr>
<tr>
<td>2. Introduction of Uncertainty</td>
<td>“Will my equipment still work?” “Will I be safe?”</td>
</tr>
<tr>
<td>3. Loss of Something Valuable</td>
<td>Limits on the use of fuel</td>
</tr>
<tr>
<td>4. Loss of Power</td>
<td>Loss of power over nature</td>
</tr>
<tr>
<td>5. Loss of Status</td>
<td>Idling a symbol of police power</td>
</tr>
<tr>
<td>6. Threats to Personal Esteem</td>
<td>“Are you saying you know how to do my job better than me?”</td>
</tr>
<tr>
<td>7. Suspicion of Exploitation</td>
<td>“This is just a cost-cutting gimmick.” “Climate change isn’t real.” “Greenest City is just a fad.”</td>
</tr>
<tr>
<td>8. Fear of Falling Behind</td>
<td>“I’m too old to learn this new technology.”</td>
</tr>
<tr>
<td>9. Absence of Perceived Need</td>
<td>“This change won’t make a real difference.”</td>
</tr>
<tr>
<td>10. Past Experiences</td>
<td>“The Idle Stop technology was a failure”</td>
</tr>
</tbody>
</table>
The Steps Communicating Change: Checklist

The following checklist has been developed from the Unfreeze-Change-Refreeze model developed by J. Liebowitz and G.J. Iskat.

<table>
<thead>
<tr>
<th>Change Management Steps</th>
<th>VPD Context VPD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unfreezing</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Give Reasons            | ● The VPD is committed to managing resources in an environmentally sustainable manner.  
                          | ● That’s why we’re rolling out new fuel-efficient vehicles equipped with anti-idling technology.  
                          | ● This will allow us to reduce vehicle emissions which will lead to a lower carbon footprint and better air quality for everyone. |
| Be Empathetic           | ● Learning new driving habits can be tricky.  
                          | ● We’ve developed an anti-idling system that is easy to use so our patrol officers can focus on doing their jobs.  
                          | ● Patrol officers have complete control over whether they use the anti-idling device or not.  
                          | ● Officers will need to remind each other to switch on the anti-idling device. |
| Communicate Clearly      | ● Our number one priority is making sure our officers have all the tools they need to do their jobs.  
                          | ● When the anti-idling device is activated the officer can keep all their communication equipment on and the engine off.  
                          | ● As long as the device is activated, the battery will never go dead. |
| **Changing**            |                 |
| Explain the benefits    | ● Save gas and reduce maintenance costs  
                          | ● Reduce air pollution  
                          | ● Cut greenhouse gas emissions  
                          | ● Set a good example for citizens & children |
| Identify a Champion     | ● Kelly Risebrough  
                          | ● Dawna Marshall-Cope  
                          | ● Rob Rothwell |
| Get Input from Employees| Idling Test Group  
                          | 3 Focus Group Summer 2013 |
| Watch Timing            |                 |
| Maintain Job Security   |                 |
| Provide Training        | Training Bulletin  
                          | Operational Bulletin  
                          | Clipboard Material |
## Appendix: Change, Transition, and Communications Plan

<table>
<thead>
<tr>
<th>Electronic Parade Briefing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video</td>
</tr>
<tr>
<td>Poster</td>
</tr>
<tr>
<td>Code Green Content</td>
</tr>
</tbody>
</table>

### Proceed at a Manageable Pace

<table>
<thead>
<tr>
<th>Redesign Socialization Processes</th>
<th>Idle Bucks Challenge</th>
</tr>
</thead>
</table>

### Replace Norms with Formal Rules

<table>
<thead>
<tr>
<th>Possibly develop formal policy once the entire fleet has been replaced</th>
</tr>
</thead>
</table>

### Refreezing

<table>
<thead>
<tr>
<th>Show Top Management’s Support</th>
<th>Public event with Chief and Deputy’s testing the new cars.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chief Chu and Deputies should publicly thank officers and staff for commitment to sustainability.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Publicize Success</th>
<th>Media Event with Chief Chu when new cars arrive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Send out a press release success</td>
</tr>
</tbody>
</table>

### Make Mid-Course Corrections

<table>
<thead>
<tr>
<th>As needed</th>
</tr>
</thead>
</table>

### Help Employees Deal with Stress

<table>
<thead>
<tr>
<th>Identify a point-person to handle complaints/questions about new technology</th>
</tr>
</thead>
</table>

### Create new stories, symbols, and rituals

<table>
<thead>
<tr>
<th>Blog Successes (Code Green Blog, Fleet Blog, ...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tweet</td>
</tr>
</tbody>
</table>

### Change Reward System to Demonstrate New Values

<table>
<thead>
<tr>
<th>Idle Bucks Challenge Activity</th>
</tr>
</thead>
</table>

## High Level Change Strategy Schedule:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Lead</th>
<th>Phase/Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin Promoting Idle Management Program on VPD Social Media</td>
<td>Sandra Glendenning and CoV Communications</td>
<td>Sept 2013 (ongoing)</td>
</tr>
<tr>
<td>Training at Parade</td>
<td>Kelly Risebrough</td>
<td>Oct 2013</td>
</tr>
<tr>
<td>Opportunity for Feedback</td>
<td>Kelly Risebrough</td>
<td>Oct 2013</td>
</tr>
<tr>
<td>Vehicle Orientation</td>
<td>Rob Rothwell</td>
<td>Vehicle Orientation</td>
</tr>
<tr>
<td>Email VPD members regarding how to use IdleRight2</td>
<td>Rob Rothwell</td>
<td>Fall 2013</td>
</tr>
<tr>
<td>Posters Addressing Idling (Internally Directed)</td>
<td></td>
<td>Fall 2013</td>
</tr>
<tr>
<td>Reminders at Parade</td>
<td>Sergeants</td>
<td>Monthly beginning</td>
</tr>
<tr>
<td>Media Event to Launch the new Dodge Charger and highlight Idle Management Program</td>
<td>Public Affairs</td>
<td>Fall 2013</td>
</tr>
<tr>
<td>Monitor Emission Reductions</td>
<td>CoV Equipment Services and Audit Dept.</td>
<td>Monthly beginning</td>
</tr>
<tr>
<td>Idle Bucks Challenge</td>
<td>Dawna Marshall-Cope</td>
<td>Spring 2014</td>
</tr>
<tr>
<td>Email VPD Patrol Officers about Emissions Reductions</td>
<td>Code Green Committee</td>
<td>Quarterly beginning</td>
</tr>
<tr>
<td>Participate in a community environmental event (Earth Day)</td>
<td>Public Affairs</td>
<td>April 2014</td>
</tr>
<tr>
<td>Role Modeling: Demonstration from Chief Chu</td>
<td>Chief’s Office</td>
<td>April 2014</td>
</tr>
<tr>
<td>Vehicle and Parking Lot Prompts</td>
<td>CoV Sustainability Group</td>
<td>Fall 2014</td>
</tr>
<tr>
<td>Posters Addressing Idling (Externally Directed) in Lobby and Reception Areas</td>
<td></td>
<td>Fall 2014</td>
</tr>
<tr>
<td>Develop Official Policy</td>
<td>Planning and Research</td>
<td>2017</td>
</tr>
<tr>
<td>Conduct the same Idle Behaviour Study that was conducted in 2012 by Greenest City Scholar</td>
<td>CoV Sustainability Group</td>
<td>Summer 2018</td>
</tr>
</tbody>
</table>
Communications Plan

The following table of communications activities can be used as a checklist to ensure that all communications avenues are pursued to get the message out about the Idle Management Program.

<table>
<thead>
<tr>
<th>Internal Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Bulletin</td>
</tr>
<tr>
<td>Operational Bulletin</td>
</tr>
<tr>
<td>Clipboard Material</td>
</tr>
<tr>
<td>Electronic Parade Briefing</td>
</tr>
<tr>
<td>Training Video</td>
</tr>
<tr>
<td>Posters (internal and external)</td>
</tr>
<tr>
<td>Code Green Content</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Event</td>
</tr>
<tr>
<td>Press Release</td>
</tr>
<tr>
<td>Memo to Vancouver Police Union</td>
</tr>
<tr>
<td>Memo to City Staff/CityWire Article</td>
</tr>
<tr>
<td>Showcase New Car at Community Events (Earth Day Celebrations)</td>
</tr>
<tr>
<td>VPD Facebook</td>
</tr>
<tr>
<td>VPD Twitter</td>
</tr>
</tbody>
</table>

Key Messages:

The following key messages are the central points which must be communicated consistently throughout the change process.

1. Through the use of IdleRight2 technology VPD Patrol Officers will never face another dead battery again.

2. The IdleRight2 is an advanced technological feature which will enhance professional performance.

3. The IdleRight2 will enable VPD Officers to demonstrate environmental leadership to the broader community.

4. The IdleRight2 will allow drivers to turn the engine off while the electronic accessories are running without the risk of running down the battery.
Protecting our Community. Protecting our Planet.
The Vancouver Police Department is investing in better vehicles that will allow us to reduce our greenhouse gas emissions and enhance performance.
The VPD is taking steps to reduce our impact on the environment. As part of our Code Green Program we’re composting and recycling to keep trash out of the landfill. We’re also cutting back on vehicle idling so we can reduce our greenhouse gas emissions. After all, we’re all in this together.
The VPD is taking steps to reduce our impact on the environment. As part of our Code Green Program we’re composting and recycling to keep trash out of the landfill. We’re also cutting back on vehicle idling so we can reduce our greenhouse gas emissions. After all, we’re all in this together.
Protecting our Planet is Everybody’s Duty

Take responsibility for your own waste.

Reduce where you can. Reuse what you have. Recycle whatever’s left.

Together we can reach our Zero Waste Goals!

Prepared by: Erin Rennie
Greenest City Scholar, 2013
Enlarge and print the following sign and post above all CZWP stations:

**NO LIQUIDS**

Out of respect for our custodial staff, please empty liquids into a sink before recycling containers. Thanks!

Print the following label as a sticker. Post it on every remaining stand-alone garbage bin:

**Landfill**

Recycling and Organics bins are available nearby

Prepared by: Erin Rennie
Greenest City Scholar, 2013
Analysis of Burn Waste at
VPD Property and Forensic Storage Section
Erin Rennie, Greenest City Scholar
August 8, 2013

Every six weeks the Vancouver Police Department Property Office takes approximately 3000kg of waste to be burned at the Covanta Energy-from-Waste Incinerator in Burnaby. This waste is made up of seized items used in police investigations (Figure 1).

<table>
<thead>
<tr>
<th>Figure 1: Items Incinerated by VPD Property Office Burn Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
</tr>
<tr>
<td>Cardboard</td>
</tr>
<tr>
<td>Soft plastics (wrap, bags, etc.)</td>
</tr>
<tr>
<td>Drugs (non-liquid)</td>
</tr>
<tr>
<td>Weapons (non-firearms) like knives and batons</td>
</tr>
<tr>
<td>Clothing and bedding</td>
</tr>
<tr>
<td>Bags/luggage</td>
</tr>
<tr>
<td>Drug paraphernalia</td>
</tr>
<tr>
<td>Small electronics (ex: cell phones)</td>
</tr>
<tr>
<td>Large electronics including (ex: computers, televisions, printers, and stereos)</td>
</tr>
<tr>
<td>Sporting equipment (ex: hockey stick)</td>
</tr>
<tr>
<td>Small kitchen appliances (ex: coffee grinder)</td>
</tr>
<tr>
<td>Personal items (photos, diaries, papers)</td>
</tr>
<tr>
<td>Documents (court documents, witness statements, etc.)</td>
</tr>
<tr>
<td>VPD Uniforms (picked up from VPD Stores on the way to be burned)</td>
</tr>
</tbody>
</table>

Although some items are sorted to be re-sold at the annual auction or recycled for scrap metal (Figure 2), most case evidence is incinerated despite the fact that about 60% of what the VPD sends to the incinerator is actually prohibited from being incinerated because it is recyclable.

<table>
<thead>
<tr>
<th>Figure 2: Items currently being diverted from VPD Burn Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Keys</td>
</tr>
<tr>
<td>License plates</td>
</tr>
<tr>
<td>Ammunition</td>
</tr>
<tr>
<td>Fireworks</td>
</tr>
<tr>
<td>Cellphones</td>
</tr>
<tr>
<td>Cardboard</td>
</tr>
</tbody>
</table>
Appendix

(Property Office doesn’t have a cardboard recycling dumpster and don’t want one because of lack of space.)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Firearms</td>
<td>VPD Firearms Unit takes rare samples. Rest are destroyed in a wrecked car, and then recycled.</td>
</tr>
<tr>
<td>Jewelry</td>
<td>Sold at VPD Auction</td>
</tr>
<tr>
<td>Bikes</td>
<td>Sold at VPD Auction</td>
</tr>
<tr>
<td>Other Valuables (non-electronic)</td>
<td>Sold at VPD Auction</td>
</tr>
</tbody>
</table>

The burn waste includes VPD uniforms which can no longer be worn. Uniforms represent approximately 5% of the burn waste. Each shipment of waste costs the VPD approximately $300-400.

A significant portion of the VPD burn waste could be diverted away from the incinerator. At the moment it is not due to a number of constraining factors including limited space and limited staff. In addition, there are some concerns about recycling or reusing evidence which may be contaminated by harmful substances such as fingerprinting chemicals, bodily fluid, pepper spray or firearms residue. All paper documents and electronics are sent to be incinerated because they may contain private information. Clothing used to be donated to a charity but that relationship dissolved and a new charity was never sought.

Covanta Energy-from-Waste is a large incineration facility in South Burnaby. Covanta cycles the energy from the burned waste back into the Burnaby energy grid. It also makes efforts to limit air pollution and particulate emitted by the facility. The process produces a highly-basic ash which must be carefully disposed of at the Vancouver Landfill as well as scrap metal which is recycled.

Although the VPD burn waste is not counted towards the Corporate Zero Waste Program waste diversion numbers, the VPD should work to reduce the amount of waste being sent to the incinerator. Despite being highly regulated, incinerators still produce solid waste (ash), air pollution (dioxins), and contribute to greenhouse gas emissions. To demonstrate commitment to sustainability the Vancouver Police Department must take steps to reduce the amount of waste being sent to the Covanta incinerator. Diverting some burn waste away from the burn bins and into the Corporate Zero Waste Program streams will have the added benefit of increasing the VPD’s diversion rates.

Recommendations

It is recommended that a full audit be conducted of the VPD Burn Waste to assess the average weight of each category of waste sent to the incinerator each year. The analysis should include an assessment of the environmental impacts of this incineration impact as well as the true degree of risk posed by the presence of harmful substances on the burn waste items (gun powder, finger print powder). This audit can then be used as a baseline to measure the effectiveness of diversion efforts.

The VPD Property Office should be supported in their efforts to divert more waste away from the burn waste stream. They may require more staff to sort waste or financial assistance to pay for special
services such as a secure paper shredding pick-up service or a secure e-waste recycling service. In some cases (drugs for example) there will be no alternative but to send the items to the burn stream. However a great deal of burn waste can easily be recycled thereby reducing the VPD’s carbon footprint, boosting diversion rates, and making these materials available for use in the economy. Figure 3 shows some ways that items currently being sent to the burn waste stream could be diverted easily and cheaply to other recycling streams.

<table>
<thead>
<tr>
<th>Item</th>
<th>Recycling Option</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardboard</td>
<td>Cardboard Recycling Dumpster</td>
<td>Urban Impact&lt;br&gt;Bulk Cardboard Recycling&lt;br&gt;1-855-211-9669&lt;br&gt;www.urbanimpact.com</td>
</tr>
<tr>
<td>Soft plastics (wrap, bags, etc.)</td>
<td>Corporate Zero Waste Program (Yellow Bin)</td>
<td>Already available. Need to educate Property Office staff.</td>
</tr>
<tr>
<td>Clothing and bedding</td>
<td>Charity Clothing Pick-up Service</td>
<td>Developmental Disabilities Association&lt;br&gt;<a href="mailto:Clothing4DDA@develop.bc.ca">Clothing4DDA@develop.bc.ca</a>&lt;br&gt;1-800-654-1331</td>
</tr>
<tr>
<td>Household items (books, toys, sporting goods)</td>
<td>Charity Clothing Pick-up Service</td>
<td>Developmental Disabilities Association&lt;br&gt;<a href="mailto:Clothing4DDA@develop.bc.ca">Clothing4DDA@develop.bc.ca</a>&lt;br&gt;1-800-654-1331</td>
</tr>
<tr>
<td>Small electronics (ex: cell phones)</td>
<td>Secure e-waste Recycling Service</td>
<td>Vernon Technology Solutions&lt;br&gt;1-877-752-0916&lt;br&gt;www.vernontech.ca</td>
</tr>
<tr>
<td>Personal items (photos, diaries, papers)</td>
<td>Secure Paper Shredding Service</td>
<td>Urban Impact&lt;br&gt;Secure Shredding Service&lt;br&gt;1-855-211-9669&lt;br&gt;www.urbanimpact.com</td>
</tr>
<tr>
<td>Documents (court documents, witness statements, etc.)</td>
<td>Secure Paper Shredding Service</td>
<td>Urban Impact&lt;br&gt;Secure Shredding Service&lt;br&gt;1-855-211-9669&lt;br&gt;www.urbanimpact.com</td>
</tr>
<tr>
<td>VPD Uniforms (picked up from VPD Stores on the way to be burned)</td>
<td>Secure Textiles Recycler&lt;br&gt;deBrand Services Inc.&lt;br&gt;www.debrand.ca&lt;br&gt;604-638-8998</td>
<td></td>
</tr>
</tbody>
</table>
Property Office staff have expressed an interest in learning to destroy electronic hard drives so that computers, cellphones, and other e-wastes can be recycled. Hard Disk Crushers are available for purchase from Vernon Technology Solutions. These devices can be purchased at [www.vernoncrusher.com](http://www.vernoncrusher.com). Property Office staff may also benefit from additional training in the secure disposal of electronic waste. By training staff and/or by hiring a secure e-waste recycling service, the VPD can significantly reduce the amount of e-waste being incinerated at the Covanta facility every six weeks, reducing emissions, pollution, and ensuring that these materials can be reused in the future.

**Acknowledgements**

I would like to thank Ian Wightman and Pam Derrett who work at the VPD Property and Forensic Storage Section for their assistance with this study. Ian and Pam work very hard to protect private information and to ensure the safe disposal of items seized during police investigations. I appreciate the work that they do along with their team. They should be recognized for their long-time service to the VPD and supported in their efforts to green the operations of the VPD Property Office.

**Contact:**

Pam Derrett, Property Custodian  
Property and Forensic Storage Section  
604.717.2723 | [pam.derrett@vpd.ca](mailto:pam.derrett@vpd.ca)

Ian Wightman, Manager  
Property and Forensic Storage Section  
604-717-3092 | [ian.wightman@vpd.ca](mailto:ian.wightman@vpd.ca)
10 Easy ways to REDUCE your waste today

1. Say “NO BAG THANKS” every time you shop. Bring a re-usable bag or simply carry small purchases.

2. Bring your MUG every day. Disposable coffee cups are the result of deforestation. Save forest habitat and keep trash out of the landfill by bringing your own mug to the coffee shop. Starbucks will even give you a discount!

3. Eliminate BOTTLED WATER from your life. Vancouver’s tap water is some of the best-tasting and highest quality in the world, plus it’s free! So bring your reusable bottle and stop spending money on bottled water!

4. Plastic bags in the produce section: UNNECESSARY! Your broccoli doesn’t need to be separated from your apples in the shopping cart.

5. Cut the pre-packaged foods. Whenever you can, avoid pre-packaged and individually-wrapped foods and opt for fresh, whole foods instead. You’ll find you cut calories and save money too!

6. Don’t waste your money on disposable dishes. Parties are classier when you use real dishes anyway. Stop buying plastic cutlery and paper plates.

7. Avoid Styrofoam. Extremely difficult to recycle and so unnecessary. Boycott take-out restaurants that use this for packaging or bring your own reusable container for take-away meals.

8. Buy food in bulk. Less packaging and better value too!

9. Invest in a few cloth handkerchiefs. Better for the planet and they feel nicer on your nose than tissues or napkins.

10. Shop for DURABILITY. Buy good-quality products that are built to last. You’ll keep trash out of the landfill and spend less in the long run.
VPD Idle Management Program

Prepared by: Erin Rennie
VPD’s 2013 Greenest City Scholar
Why do VPD Members Idle?

Technological Solution:
- IdleRight 2 Device

Change Management Strategies:
- Education
- Rewards
- Prompts
- Reminders
- Friendly Competition
- Role Modeling

Police Operational Needs:
- Lights
- Computer battery
- Charge GPS
- Radio Communication

Comfort:
- Air Conditioning
- Heater
- Keep music playing
- Perception of safety

Habit:
- Unaware of environmental impacts
- Unaware of bylaw
- Habit built up over many years
- Fear of dead battery

Myths:
- "Turning the engine off and on is bad for the car"
- "Idling doesn't make a difference"
- "Cars need to heat up before they run in cold weather"
So how will the Idle Management Program Work?

1. Turn Engine Off
2. Leave Accessories On
3. IdleRight2 Monitors Battery
4. No Dead Batteries Guaranteed
Benefits

- Operational Benefits
- Improved Air Quality
- Improved Public Image
- Cost Savings
- Shrink Carbon Footprint

VPD 2020 Emission Reduction Target is 35%
We will only see benefits if we break the idling habit...

- Education
- Rewards
- Prompts
- Reminders
- Friendly Competition
- Role Modeling
What we need from you:

- Support
- Communication Assistance
- Feedback
These decal samples can be used as a template for decals which should be affixed to the interior of new VPD fleet vehicles to remind drivers to turn the engine off while the vehicle is stopped.

Idling Gets you Nowhere!

This vehicle is equipped with **Idle Management Technology**. Please do your part and reduce vehicle idling. -Thanks

This vehicle is equipped with an **Idle Management Device**.

Turn your engine off. Keep your gear on. No dead batteries. Guaranteed.
Idle Bucks Challenge

This activity had been designed with the goal of helping VPD patrol officers to quickly break their bad habit of unnecessary idling. This is a friendly and fun competition which will promote team bonding, environmental awareness, and fuel use reduction.

**Necessary Materials:**
- $50 Tim Hortons Cards
- “Idle Bucks” printed on photocopy paper
- Promotional Posters

**Players:**
Members of each team play against each other. If a team doesn’t want to participate they are not obligated.

**Prizes:** A $50 gift certificate to Tim Hortons is offered to the winner in each Team.

**Object of the Game:** To collect the most Idle Bucks from other team members and avoid losing your Idle Bucks to fellow team members.

**Process:**
- Explain how the IdleRight2 Device works, benefits, and limitations.
- Each Team Member receives 10 “Idle Bucks” at the beginning of the week.
- When a team member catches another member of their own team idling unnecessarily for over 3 minutes they can “fine” them one Idle Buck.
- At the end of the week the member with the most Idle Bucks receives the gift certificate.

“Unnecessary Idling” is Defined as:
- Idling for over 3 minutes when vehicle is stopped except:
  - When stopped in traffic
  - When the air conditioning is required
  - When the heat is required
  - When there are legitimate operational reasons for idling.
- In a stealth situation.

**Rules**
- You may only “fine” a team member if it is safe to do so.
- This is not a public competition.
- Team members may not collude with each other or form alliances.
- Idling is permitted when the heater or air conditioner are necessary.
Appendix

Anti-Idling Focus Group
Vancouver Police Department

Conducted by: Erin Rennie

Welcome (1 min)
- Thank you for coming
- Introductions
- Greenest City Goals
- Purpose of my research
- Confidentiality issues

Introduction of New Anti-Idling Technology (4 min)
- Idling means leaving the engine running while the vehicle is stopped.

- The new VPD vehicles will be equipped with an idle management program.

- A master switch will be installed on the dash enabling the officer to activate the program when appropriate, such as when the car will be unoccupied with its emergency equipment in operation.

- The car can then be switched off with the emergency lights and accessories running. The program will monitor the vehicle’s battery during this time.

- If the battery voltage drops below a pre-determined threshold, the program will restart the car automatically to charge the battery, and turn it off when the battery is suitably refreshed. This cycle will repeat itself as long as needed.

- The car will remain secure while running. Only the key-holder will be able to place it in gear.

- The program will ensure that there is always sufficient power in the battery to charge the computer, run the lights, siren, GPS, and start the vehicle when the driver returns.

- The anti-idling technology will not work unless the officer actively chooses to use it. They will have the freedom to continue idling if they choose.

Discussion (15 min)
- What are your concerns about the new idling technology?

- Do you think you and your colleagues will use this technology? Why or why not?

- When can you see yourself using it?

- When would you not use it?
• Officers often say the idle because they feel safer with the car running. How can we make the officers feel safe while the engine is turned off?

• Research has shown that the majority of police idling occurs while officers are attending to personal errands and not because of policing needs. How can we encourage officers to stop this unnecessary idling?

• Thinking about motivators, which of the following communication methods should the VPD use to encourage officers to use the anti-idling technology and idle their vehicles less:

| Training and Operational Bulletins |  |
| Educational Videos |  |
| Posters |  |
| Signage in Parking Lots |  |
| Blog Posts (Code Green Blog, Fleet Blog) |  |
| Email Reminders |  |
| Rewards for individual efforts |  |
| Friendly competitions between districts for rewards |  |
| Official VPD policy |  |
| Punishments (ex: fines) |  |
| Demonstrated support by Chiefs and Deputies (ex: a media event) |  |
| Other |  |

• Reducing VPD idling will have many benefits including cost savings, pollution reduction, climate change mitigation, and improved public image. Which of these benefits is the most likely to compel you to reduce your idling?

• Has your idling changed since the COV brought in the anti-idling bylaw?

• How should the VPD roll-out this new technology?

Conclusion
• Thank you for participating
• Any further thoughts or concerns?
• Exchange contact info