#### **CORPORATION OF THE TOWNSHIP OF ESQUIMALT**



#### AGENDA

#### **ENVIRONMENTAL ADVISORY COMMITTEE MEETING**

September 27, 2018 7:00 p.m. Wurtele Room, Esquimalt Municipal Hall

1.	CAL	CALL TO ORDER – Staff Liaison					
2.	LAT	TE ITEMS					
3.	APF	PROVAL OF THE AGENDA					
4.	INTRODUCTIONS						
5.	ELECTIONS						
	(1)	Election of Chair and Vice-Chair					
6.	MIN	UTES					
	(1)	Minutes of the Environmental Advisory Committee meeting, October 26, 2017	Pg. 1 – 3				
7.	NEW BUSINESS						
	(1)	Council Policies a) Operational Guidelines for Council Committees b) Environmental Advisory Committee Terms of Reference	Pg. 4 – 5 Pg. 6 – 7				
	(2)	Council Strategic Priorities 2015 – 2019 a) Updated Strategic Priorities Chart (September 2018) b) Strategic Priorities (2018)	Pg. 8 Pg. 9 – 17				
	(3)	Membership List Contact Information					
	(4)	Agenda Items and Distribution					
	(5)	Meeting Schedule Dates and Times					
	(6)	Zoe Minnaard, Surfrider Presentation, Re: Single Use Plastic Bags	-Chair  Immental Advisory Committee meeting, Pg. 1 – 3  Is for Council Committees Pg. 4 – 5 Pg. 6 – 7  Is 2015 – 2019 Inities Chart (September 2018) Pg. 8 Pg. 9 – 17  Information  Informa				
	(7)	Memorandum from Tricia deMacedo, dated September , 2018, Re: Options for Single Use Plastic Bag Reduction in the Township	Pg. 18 – 36				
	(8)	Memorandum from Tricia deMacedo, dated September, 2018, Re: Environmental Options for Cigarette Butt Disposal	Pg. 37 – 64				

#### 8. **ADJOURNMENT**



#### CORPORATION OF THE TOWNSHIP OF ESQUIMALT

## MINUTES ENVIRONMENTAL ADVISORY COMMITTEE

Thursday, October 26, 2017 7:00 p.m. Wurtele Room, Municipal Hall

PRESENT: Casey Brant

Susan Low Chloe Blankers Ronn Stevenson Waheema Asghar

Councillor Lynda Hundleby (Council Liaison)
Councillor Olga Liberchuk (Council Liaison)

STAFF: Marlene Lagoa, Community Development Coordinator (Staff Liaison)

Deborah Liske, Recording Secretary

**REGRETS:** Brenda Bolton

#### 1. CALL TO ORDER

Marlene Lagoa, Staff Liaison called the meeting to order at 7:03 p.m.

#### 2. LATE ITEMS

There were no late items.

#### 3. APPROVAL OF THE AGENDA

Moved by Chloe Blankers, seconded by Susan Low that the agenda of the Environmental Advisory Committee meeting of October 26, 2017 be approved as presented. The motion **CARRIED**.

#### 4. <u>INTRODUCTIONS</u>

Committee members provided brief introductions.

#### 5. MINUTES

(1) Minutes of the Environmental Advisory Committee meeting, June 22, 2017

Moved by Chloe Blankers, seconded by Ronn Stevenson that the minutes of the Environmental Advisory Committee meeting of June 22, 2017 be approved as presented. The motion **CARRIED**.

#### 6. <u>NEW BUSINESS</u>

- (1) Council Policies
  - (a) Operational Guidelines for Council Committees
  - (b) Environmental Advisory Committee Terms of Reference
  - (c) Role of Youth Representative

Ms. Lagoa reviewed the following Council policies: Operational Guidelines for Council Committees; Environmental Advisory Committee Terms of Reference; and Role of Youth Representative.

- (2) Council Strategic Priorities 2015 2019
  - a) Updated Strategic Priorities Chart (January 2017)
  - b) Strategic Priorities Report (2017)

Ms. Lagoa outlined the 2015 – 2019 strategic priorities of Council.

#### (3) Membership List Contact Information

A confidential membership contact list was circulated for review by committee members. It was requested any revisions be provided to the Recording Secretary.

#### (4) Agenda Items and Distribution

Items for the agenda must be provided to the Chair and Staff Liaison for review and approval. Council and staff will also refer items to the agenda. Agendas are made available for pick-up at the Recreation Centre for those that request. Committee members will be advised via email once agendas are available for pick-up and posted on municipal website.

(5) Meeting Schedule Dates and Times

The committee will meet as required, at the call of the Chair on the fourth Thursday of the month at 7:00 p.m. in the Wurtele Room or on an alternate date as deemed necessary to complete the business of the committee. The committee will not meet in the months of July, August and December as per the committee's terms of reference.

#### 7. REPORTS FROM STAFF LIAISON

(1) Oil to Heat Pump Incentive Program

Ms. Lagoa reported four out of the twenty \$150 "top-up" incentives have been claimed to date and responded to questions.

(2) BCSEA Cool It! Climate Leadership Training

Ms. Lagoa reported all five workshops have been booked with select classrooms at Macaulay and Rockheights school. Ms. Lagoa also responded to questions.

(3) Sale of Eggs – Animal Management Bylaw, 2015, No. 2841

Ms. Lagoa provided an update on the Animal Management Bylaw which will now allow the selling of eggs from urban hens.

#### 8. COMMUNICATIONS

(1) Memorandum from Marlene Lagoa, Staff Liaison, dated September 18, 2017, Re: Green Communities Climate Action Recognition Program – Letter from Tara Faganello

Ms. Lagoa provided an overview of the recognition program, explained how the Township of Esquimalt accomplished Level 3 recognition and responded to questions.

(2) Memorandum from Marlene Lagoa, Staff Liaison, dated October 24, 2017, Re: Air Quality Health Concerns – Letter from Island Health

Committee members reviewed the communications item and provided the following input and feedback:

- Require registration of wood burning devices
- Create incentives / programs for replacement of noncertified appliances
- Expand heat pump program to include noncertified woodstoves
- Host community bonfire day / demonstrations of certified / efficient wood burning appliances
- Implement community engagement, social marketing / awareness campaigns, public education
- Highlight air quality information

Ms. Lagoa provided clarification and responded to questions.

Moved by Casey Brant, seconded by Waheema Asghar that the Environmental Advisory Committee recommends the Township of Esquimalt support a social marketing and educational campaign to raise awareness about the impact of wood smoke on air quality and health as well as expand the existing oil to heat pump incentive program to include uncertified wood stove appliances to heat pump. The motion **CARRIED**.

#### 9. ELECTIONS

(1) Election of Chair and Vice-Chair

The meeting adjourned at 8:44 p.m.

Marlene Lagoa, Staff Liaison provided an overview of Chair and Vice Chair roles and responsibilities.

Ms. Lagoa opened the floor to nominations for Chair.

Casey Brant was nominated for the position of Chair. Casey Brant was appointed to the position of Chair of the Environmental Advisory Committee by acclamation.

Ms. Lagoa opened the floor to nominations for Vice Chair.

Susan Low and Chloe Blankers were nominated for the position of Vice-Chair. Susan Low declined the nomination of Vice Chair. Chloe Blankers was appointed to the position of Vice-Chair of the Environmental Advisory Committee by acclamation.

#### 10. ADJOURNMENT

	Certified Correct:
, Chair This day of , 2018	Anja Nurvo, Corporate Officer



#### CORPORATION OF THE TOWNSHIP OF ESQUIMALT

#### **COUNCIL POLICY**

TITLE:	Operational Guidelines for Council	NO. ADMIN- 45
	Committees and Commissions	

#### **POLICY**

Council may, at its pleasure, establish committees and/or commissions ("committees") assigned the review of clearly defined areas of concern and interest to Council, as set out in the approved Terms of Reference or Bylaw, as applicable.

#### **PURPOSE**

The purpose of such committees is to assist Council to accomplish its goals and objectives as outlined in Council's Strategic Plan, and to provide focused public input for Council's consideration on matters referred to the committee by Council, and for staff's consideration on matters referred by staff.

#### **OUTPUT**

The output of committees will take the form of one of the following:

- 1. Recommendations to Council:
  - Advice for Council to consider on particular issues referred to the committee by Council:
  - Suggested policies for Council to consider, provided such fall within the Terms of Reference of the committee;
  - Request to Council to refer a specific project to the committee; however, prior to such a recommendation proceeding to Council, staff will prepare a report outlining the impact the request would have on budget, staff time, departmental workload and Council's Strategic Plan.
- 2. Recommendations and input to Staff:
  - As requested by staff, provide observations regarding community perspectives for staff to consider when seeking a decision by Council.

#### **BUDGET**

Committees may submit a request to Council for approval of funding to cover specific costs. If such funds are allocated to a committee, the Staff Liaison will provide a regular status update of the budget to the committee, and the committee shall provide a report to Council on the use of such funds.

#### PROCEDURAL REQUIREMENTS

#### 1. Open Meetings

All meetings of committees will be open to the public except as provided for in Section 90 of the *Community Charter* and as determined by either:

EFFECTIVE DATE:	APPROVED BY:	REFERENCE:	AMENDS NO.	PAGE 1 OF 2
May 25, 2015	Council	ADM-15-021	February 4, 2013	
			-	

## TITLE: Operational Guidelines for Council Committees and Commissions

NO. ADMIN- 45

- The Corporate Officer;
- The Chief Administrative Officer:
- The Staff Liaison or senior staff person in attendance at the meeting; or
- The Council.

#### 2. Meeting Procedures

All procedures of committees shall comply with the *Council Procedure Bylaw*, 2009, No. 2715, as amended.

#### 3. Notices of Meetings, Agendas and Minutes

- A copy of all notices of meetings and agendas shall be provided to the Corporate Officer for posting on the Township's website at least 2 days before the meeting.
- Minutes shall be recorded by staff at all meetings of committees.
- Draft minutes shall be provided to the Corporate Officer at the earliest opportunity, for inclusion in a Council agenda for Council's information.
- Minutes shall be adopted by the committees and the original adopted minutes shall be signed by the Chair/Acting Chair and provided to the Corporate Officer for the corporate records and for posting on the Township's website.

#### **ORIENTATION**

Committee members appointed by Council will be provided with an orientation session from senior staff to be scheduled annually following Council's appointments to committees. Council members may participate in the orientation. Staff will seek to arrange specific training in conducting effective meetings for those committee members appointed as the Chair and Vice-Chair.

#### **ROLES**

- 1. Chair the role of the Chair of a committee shall be to:
  - chair and call meetings;
  - together with the Staff Liaison, create the meeting agendas;
  - be well informed on activities and issues within the assigned area, and provide leadership and relevant information to assist the committee in meeting its mandate
  - establish subcommittees as may be required for specific projects that have been directed to the committee by Council;
  - attend Council meetings to present any report of the committee where a specific recommendation is being made to Council for its consideration;
  - mentor the Vice-Chair to assist with leadership succession and to act as the alternate chair in the Chair's absence at any meeting or event.
- 2. Council Liaison the role of Council Liaison(s) of a committee/commission shall be to:
  - assist the committee/commission with focus and clarity regarding Council's Strategic Plan;
  - represent the interests of Council based on existing policies, budget and Strategic Plan.

EFFECTIVE DATE:	APPROVED BY:	REFERENCE:	AMENDS NO.	PAGE 2 OF 2
May 25, 2015	Council	ADM-15-021	February 4, 2013	



#### CORPORATION OF THE TOWNSHIP OF ESQUIMALT

#### **COUNCIL POLICY**

TITLE: Terms of Reference Environmental Advisory Committee

NO. ADMIN - 47

#### **PURPOSE**

The purpose of the Environmental Advisory Committee (the "Committee") is to assist Council to accomplish its goals and objectives as outlined in Council's Strategic Plan.

#### **MANDATE**

The Committee will, consistent with the purpose described above:

- Provide advice and recommendations to Council on any matters referred to the Committee by Council; and
- Provide input on environmental issues and impacts as requested by staff.

The Committee may request Council for authorization and direction to undertake a specific activity, project or work that the Committee thinks would assist Council to achieve its Strategic Plan, in accordance with Council Policy ADMIN-45 "Operational Guidelines for Council Committees and Commissions."

In its advisory role, the Committee will ensure that any action, communication or correspondence relating to the Committee shall be taken or prepared by the Township. The Committee may make a recommendation to Council relating to proposed action, communication or correspondence for Council's consideration and direction.

#### **MEMBERSHIP**

The Committee consists of up to Eight (8) full voting members and Four (4) non-voting members as follows:

#### **Full Voting Members**

- Community representatives Up to Seven (7) as appointed by Council.
- Youth representatives one or more as appointed by Council in accordance with Council Policy ADMIN-60 "Role of Youth Representative Appointments to Council Committees"

#### Non-Voting Members

- Council Liaison Up to Two (2) members of Council as appointed by the Mayor
- Staff Liaison Appointed to act as a resource to the Committee in accordance with Council Policy ADMIN-61 "Role of Staff Liaison Appointment to Council Committees."
- Recording Secretary Assigned to the Committee to prepare notices of meetings, agendas, minutes, and to assist with any follow up, meeting logistics and preparation as may be required.

<b>EFFECTIVE DATE:</b>	APPROVED BY:	REFERENCE:	AMENDS NO.	PAGE 1 OF 2
May 25, 2015	Council	ADM-15-021	January 6, 2014	

## TITLE: Terms of Reference Environmental Advisory Committee

**NO. ADMIN - 47** 

#### QUORUM

The calculation of quorum to conduct business is 50% +1 of full voting members, for example: 8 full voting members - quorum is 5

7 full voting members - quorum is 4 6 full voting members - quorum is 4 5 full voting members – quorum is 3

#### **TERMS**

Members may be appointed for One (1) or Two (2) year terms, with term end dates split between alternating years to ensure continuity of committee membership. On application, members may be re-appointed for up to three (3) consecutive terms.

All appointees sit at the pleasure of Council and may be removed at Council's discretion. Council may rescind a member's appointment if the person is absent from three (3) regularly scheduled committee meetings in any one (1) year period, unless the absence is because of illness or injury or is with the leave of Council.

#### **MEETINGS**

The Committee will meet a minimum of four (4) times per year. No meetings are held during the summer and winter breaks (July, August and December). Meetings shall be held at the call of the Chair.

At the first meeting following appointments, the Committee will elect a Chair and Vice-Chair from amongst its full voting members. If Council deems it necessary, Council may appoint the Chair for the Committee.

Meeting procedures will be in accordance with the *Community Charter and Council Procedure Bylaw*, as set out in Council Policy ADMIN-45 "Operational Guidelines for Council Committees and Commissions."

<b>EFFECTIVE DATE:</b>	APPROVED BY:	REFERENCE:	AMENDS NO.	PAGE 2 OF 2
May 25, 2015	Council	ADM-15-021	January 6, 2014	





### **Strategic Priorities 2015 - 2019**

## We continue to enhance the health and liveability of the community



- •Support community growth, housing and development consistent with our Official Community Plan
- •Ensure multi-modal traffic strategies consider and reflect business and residential growth and development
- •Build a vibrant and sustainable arts, culture and heritage community
- Parks & Recreation enhancements and strategic parkland acquisition and expansion
- Ensure heritage values are considered in land use decisions
- Support food security and initiatives to improve community spaces
- Proactively address emerging trends in public safety



## We recognize the importance of, and will enhance relationships with our neighbours and other levels of government

- Advocate at the regional level for voice and equity in regional services
- •Work with First Nations and the Esquimalt community to support economic, social and cultural opportunities
- Advocate with intergovernmental entities to promote issues affecting Esquimalt
- •Continue working with government and school district stakeholders to promote positive relationships and advance issues impacting the community



#### We encourage a resilient and diverse economic environment

- •Continue to work with development partner on the Esquimalt Town Square project
- Implement Economic Development Strategy
- Support revitalization and beautification initiatives along Esquimalt Road
- •Ensure processes for business and development are clear and consistent
- Encourage and facilitate community involvement that supports non-governmental initiatives



## We continue to address the operational and financial requirements of our infrastructure

- Participate in integrated waste strategies
- •Identify infrastructure repair and proactively plan for replacement needs
- •Identify long term financial requirements for infrastructure

Updated January 2018

#### **HEALTHY AND LIVEABLE COMMUNITY**

Operational strategies	Responsibility	Progress		
Support community growth, housing and development consistent with our Official Community Plan (OCP)				
Proactively address potential increased movement on E&N rail corridor (including parking strategy)	Engineering & Public Works	Reviewing information as it becomes available. This information will be used to develop a course of action for the situation.		
Consider establishment of Social Planning Committee	Corporate Services Development Services	To be reviewed during Council Strategic Planning Session scheduled for November 30-December 1, 2018		
Develop strategy for private use of public lands	Community Safety Services Development Services	Report taken to Council <i>In Camera</i> re: enforcement.		
Consider establishment of Housing Task Force after adoption of OCP to research and recommend sustainable and inclusive housing strategies	Development Services	The OCP has been adopted. Development Services is waiting for further instructions from Council via the Chief Administrative Officer.		
Adopt and implement updated OCP including all DP Guidelines	Development Services	Completed.		
Ensure multi-modal traffic strategies con	sider and reflect business ar	nd residential growth and development		
Research and consider best practices for multi-modal traffic initiatives and strategies	Engineering & Public Works	Project for traffic studies underway. As work proceeds these practices will be reviewed/modified/implemented as per project area.		
Integrate Bike Lanes with consideration of CRD Master Cycling Plan	Engineering & Public Works	Project for traffic studies underway. As work proceeds these practices will be reviewed/modified/implemented as per project area.		
Engage with stakeholders and user groups to ensure input is considered	Engineering & Public Works	Project for traffic studies underway. As work proceeds these practices will be reviewed/modified/implemented as per project area.		
Utilize groups as needed for referral and recommendation on accessibility issues (ie Recreation Integration Victoria)	Engineering & Public Works Parks & Recreation	As projects are started, engagement will be carried out with user and stake holder groups.		
Consult with Esquimalt Chamber of Commerce on installation of additional bike racks in commercial areas	Development Services	Consultation will occur as development proposals are considered.		

Build a vibrant and sustainable arts, culture and heritage community			
Review and update public art policy	Parks & Recreation Development Services	Work on this item will begin during the Winter.	
Parks and Recreation enhancements and	d strategic parkland acquis	ition and expansion	
Continue to implement a multi-year upgrade and replacement of Township playground areas (Hither Green & Little League)	Parks & Recreation	Little League playground upgrades are underway. Community consultation for Hither Green design will begin this Winter.	
Facilitate and conduct public consultation for McLoughlin Point Amenity Reserve Funds	Parks & Recreation	The McLoughlin Amenity Fund Round #2 community consultation is currently underway.	
Continue with opportunity to replenish Parkland Acquisition Fund	Parks & Recreation Financial Services	Work is ongoing. Discussion with the Lampson Park property is in process with Development Services.	
Increased engagement with Parks & Recreation Advisory Committee	Mayor & Council Parks &Recreation	Staff invited the Committee to be involved in the Information gathering process for the McLoughlin Amenity Fund.	
Ensure heritage values are considered in	n land use decisions		
Training for Advisory Planning Commission members on Heritage Values	Development Services	This will be done in the third period.	
Complete 2 additional statements of significance in accordance with the Heritage Policy	Development Services	The Statement of Significance for St. Peter and St. Pauls Church has been completed adopted by Council. A second one will be completed as time permits.	
Support food security and initiatives to i	mprove community spaces		
Explore opportunities for community gardens	Parks &Recreation	Staff are working with new Community Garden stakeholders for expansion and upgrades at Anderson Park.	
Promote awareness of urban farming opportunities	Development Services	With the adoption of the OCP there is now a robust policy framework to support urban farming. Staff will use all available opportunities to promote urban farming	
Proactively address emerging trends in	public safety		

Ensure compliance with Victoria and Esquimalt Police Framework Agreement	CAO Community Safety	On going discussions with VicPD, City of Victoria and Police Services with the Province regarding policing and the applicability of the Framework Agreement. Recent meeting with new Esquimalt Police Board representative regarding Framework Agreement and policing in general
Establish regulations for legalization of marihuana	Community Safety Human Resources Development Services	Re-zoning process has been determined to be most applicable for stand alone cannabis sales.
Research opportunities for public alert system	Community Safety	Province has rolled out a fan out system, one test has been conducted. Connect Rocket being used for smaller scale fan outs to Staff and associated partner agencies

#### **KEY RELATIONSHIPS**

Operational strategies	Responsibility	Progress		
Advocate at the regional level for voice and equity in regional services				
Review Capital Regional District arts service involvement and funding	Financial Services	This will be reviewed with a staff report being prepared during the third period		
Explore and identify efficiencies between local and regional initiatives	**staff responsibility dependent on specific initiative	Participation in regional emergency social services meeting and exercises, participation in regional and provincial emergency management project working groups and Commissions  Fire Dispatch service contracts have been signed and transition to Surrey is almost complete; comprehensive RFP process was joint effort with 4 other municipalities		
Work with First Nations and the Esquimal	community to support econ	omic, social and cultural opportunities		
Continue to organize regular Community to Community forums	Development Services	Staff successfully receive funding to host Community to Community forums.		
Consult and engage with First Nations on economic development and planning initiatives	Development Services	All OCP amendments are circulated to both First Nations. In addition, staff constantly look for opportunities to cooperate in planning and economic development initiatives.		
Advocate with intergovernmental entities	to promote issues affecting I	Esquimalt		
Utilize larger organizations to advocate with other levels of government (AVICC/UBCM/FCM)	Mayor & Council	5 resolutions sent to UBCM on sustainability initiatives and one issue on the Motor Vehicle Act sent to the Federal Government in this period		
Work with Federal agencies to ensure coordination of development projects and mitigation of impacts	Mayor & Council	Council and senior staff continue to meet on a regular basis to discuss projects of mutual interest; most recently the Corvette Landing development and jurisdictional issues in regard to a land transfer.		
Clarify and establish Esquimalt position on Victoria & Esquimalt Police Board	Mayor & Council CAO	CAO and Director of Community Safety met with new representative on Police Board to review Framework Agreement and policing in general.		

Continue working with government and school district stakeholders to promote positive relationships and advance issues impacting the community				
Collaborate with CFB Esquimalt, School Districts and other municipalities on efficiencies and partnerships in Parks and Recreation Services	Parks & Recreation	Discussions with the SD's are ongoing. Regional collaboration continues with other P&R municipalities.		
Continue to enhance use of social media as engagement tool	Corporate Services	Sharing posts from community stakeholders and Parks & Recreation; weekly meetings to plan and schedule regular posting content; developing graphics and using images to enhance social media content		
Promote emergency preparedness through shared initiatives and training	Community Safety	Participation in various Provincial and regional conference calls and working groups, including National Disaster Mitigation Program Grant submission for Capital Region Coastal Flood Inundation Mapping that includes tsunami modelling; hosting EMBC sponsored courses for Region		
Utilize Community Safety Working Group on issues impacting the community	Community Safety	The Group has reviewed concerns relating to traffic and also properties that generate multiple bylaw and police calls for service. Strategies implemented have resulted in call reductions.		
Consultation with stakeholders on McLoughlin Point amenities including First Nations, CFB Esquimalt, residents associations, School Districts, PAC	**responsibility varies and will involve multiple departments	Phase II of the community consultation is currently underway and results will be presented to Council early in 2019.		

#### **RESILIENT AND DIVERSE ECONOMY**

Operational strategies	Responsibility	Progress			
Continue to work with development partner on Esquimalt Town Square Project					
Obtain Certificate of Compliance	Engineering & Public Works	Final submission package is being finalized with submission expected in third period.			
Monitor construction of new library space	Development Services	Development Services is working with both the library staff and the developer to ensure that the new library is built according to specifications.			
Finalize storm and sanitary servicing	Engineering & Public Works	Tender package for the work is expected to be released early in the third period. Completion will be at the end of third period or early 2019.			
Ensure regular community updates on ETS progress (timelines/status in newsletters)	Development Services Corporate Services	Updates provided through community newsletter and dedicated section of website (Esquimalt.ca/ETS)			
Implement Economic Development Strate	Implement Economic Development Strategy				
Review and update economic development strategies and action plan including measurables	CAO Development Services	Staff will bring a proposed process to Council for discussion. This will be done in the third period.			
Engage consultant to develop Communications and Marketing Strategy and materials	CAO Development Services	Drafting of the request for proposals has begun and will be issued in the third period.			
Utilize relationship with Urban Development Institute as additional input and resource for economic development, including workshop session	CAO Development Services	A workshop is planned for the end of September.			
Prepare business case outlining options for enhanced economic development	CAO	The business case will be presented to Council during budget deliberations in the first period of 2019 to coincide with transfer of funds currently utilized for South Island Prosperity Project membership.			
Utilize relationship with Esquimalt Chamber of Commerce to increase engagement with local businesses	CAO	Chamber is currently being engaged to contribute resources to the 'Welcome to Esquimalt Packages' and continues to be involved in consultation on amenity funds.			

Support revitalization and beautification initiatives along Esquimalt Road					
Promote Revitalization Tax Incentive Program	* as part of EDS marketing strategy	Program is highlighted on our website and has been highlighted in several publications by the Township Communication Specialist.			
Enhanced maintenance along Esquimalt Road corridor	Engineering & Public Works	Work to be carried out as per approved budget levels.			
Refer Cigarette Butt program to Environmental Advisory Committee for recommendations and options	Development Services	This will be referred to the EAC's September meeting.			
Ensure processes for business and devel	opment are clear and consist	ent			
Review Township policies and bylaws to ensure efficient processes; amend and update as necessary	Corporate Services	3 Council Policies and 4 Bylaws were reviewed and updated (not including land-use related bylaws)			
Consider improvement to user services on website to make more accessible	Corporate Services	Working with website consultant to optimize site map of Township website			
Encourage and facilitate community invol	vement that supports non-go	overnmental initiatives			
Recruit volunteers for ETAG (Esquimalt Together Against Graffiti)	Engineering & Public Works	Undertake a review of how ETAG is structured and then carry out a recruitment drive. Drive to occur in third period and early 2019.			
Coordinate with Esquimalt Chamber of Commerce to connect with local businesses on major initiatives	Mayor & Council CAO	Major initiative continues to be amenity fund consultation at this time.			

#### WELL MANAGED AND MAINTAINED INFRASTRUCTURE

Operational strategies	Responsibility	Progress			
Participate in integrated waste strategies					
Monitor compliance with all zoning and development agreements for McLoughlin Point WWTP	CAO Development Services	All permits have now been issued for both McLoughlin and Macaulay; letter requesting release of amenity funds has been forwarded to CRD.			
Ensure Township representation continues on committees (technical & community)	Engineering & Public Works	Staff continues to sit on community liaison and technical committees which meet on a regular basis.			
Work with CRD to ensure protection and enhancement of existing infrastructure	Engineering & Public Works	Work with the technical committee to review proposed work and how existing infrastructure will be protected or enhanced.			
Explore local initiatives for other waste streams	Engineering & Public Works	Staff participates through various CRD committees. As new initiatives are brought forward, staff is participating in the development or implementation. RFP for IRM strategy for Township to occur in the third period.			
Identify infrastructure repair and proactive	Identify infrastructure repair and proactively plan for replacement needs				
Implementation of Inflow and Infiltration management plan and evaluation of underground infrastructure	Engineering &Public Works	RFP for model component is under review. Continue to develop policy for cost sharing model for inflow and infiltration.			
Continued implementation of sidewalk master plan	Engineering & Public Works	Initiated construction of projects for new and replacement sidewalk projects in the second period with construction being completed in the third.			
Continued implementation of roadway master plan	Engineering & Public Works	Work for storm/sanitary main inspection and cleaning continued in second period and into third. Starting to develop priority list of trouble spots.			
Continued implementation of street lighting improvements and upgrades	Engineering & Public Works	Project started in second period with completion in third period.			
Public consultation for McLoughlin Point Amenity Reserve Fund (PSB)	Fire Chief	Public Consultation is in progress through local community events (Stage 2).			
Identify long term financial requirements for infrastructure					
Complete and update infrastructure and asset inventory	Financial Services Engineering & Public Works	Information on linear and vertical assets collected and assigned to databases.			

	Parks & Recreation	
Development of asset management strategy and plans	Financial Services Engineering & Public Works Parks & Recreation	Utilizing asset management philosophy and strategies, a consultant has been retained to carry out a gap analysis and prepare an action plan for advancing asset management. Work started in second period and will be completed late 2018/early 2019.



#### **MEMORANDUM**

**DATE:** September 17, 2018

**TO:** Environmental Advisory Committee

**FROM:** Tricia deMacedo, Policy Planner

Staff Liaison

**SUBJECT:** Options for Single Use Plastic Bag Reduction in the Township

#### **Referral from Council**

At the January 8, 2018 Special Council Meeting, the following motion was carried:

Once the City of Victoria evaluates it's effectiveness of its proposed Single-Use Checkout Bag Regulation Bylaw, within one year of implementation, the Township may review options to reduce plastic bag use in Esquimalt and further consider drafting a Bylaw to that effect.

In addition, at the October 23, 2017 Regular Council Meeting, the following motion was carried:

That Council direct staff to prepare a Staff Report in collaboration with input received from the Environmental Advisory Committee, pertaining to the consideration of reducing the use of plastic bags in Esquimalt.

#### **Background**

The City of Victoria introduced new regulations beginning July 1, 2018, that regulate the use of single use plastic bags by retailers within the municipality. The District of Saanich is also moving forward with development of a bylaw, based on the City's bylaw, by June 2019. Many other municipalities around BC are considering similar strategies to decrease the number of plastic bags provided free of charge by retailers.

Lisa Helps, Mayor of Victoria, corresponded late in 2017 with the Township, including a staff report from Fraser Work (Appendix A), encouraging Esquimalt Council to use Victoria's Checkout Bag Regulation Bylaw (Appendix B), as a model for a similar bylaw in this municipality, if Council determines that regulation is the best approach to reducing the use of single-use plastic bags. The CRD has also developed a model bylaw for local municipalities (Appendix C).

At the meeting where this item was discussed, Council expressed a desire to wait until one year after implementation of Victoria's bylaw to determine the effectiveness of that bylaw before considering further steps within the Township. However, more recently, they have asked for advice and recommendations from the EAC in order to proceed with this issue.



At the UBCM meetings in Whistler this September, Victoria's resolution regarding plastic packaging was unanimously supported by Mayors and Councillors. The resolution (B29) reads as follows:

Whereas uniform regulations of businesses provide predictability, certainty and efficiency for consumers and business operators; And whereas unrestricted use of disposable plastic packaging is inconsistent with values of British Columbia residents and imposes costs on local governments in British Columbia, prompting communities to examine options for business regulations limiting disposable plastic packaging in order to contain costs and manage solid waste streams responsibly: Therefore be it resolved that the Province of British Columbia work with local governments and retailers to introduce uniform, province-wide business regulations in relation to disposable plastic packaging, to substantially reduce the volume of disposable plastic packaging in local solid waste streams.

A further motion was also endorsed (B126):

Therefore be it resolved that the Province of British Columbia engage the packaging industry to develop a provincial Single-Use Item Reduction Strategy as part of a provincial Zero Waste Strategy, which would include but not necessarily be limited to plastic and paper shopping bags, polystyrene foam cups and polystyrene foam containers, other hot and cold drink cups and take-out containers, 2 straws and utensils, but would exclude all single use items needed for medical use or for people with disabilities.

#### **Options for Recommendations to Council**

- 1. Continue to wait one year until the effectiveness of the City's bylaw has been determined and whether any unintended consequences of the bylaw, if any, need to be remedied.
- 2. Engage a third party to pursue an educational approach to reducing the use of plastic checkout bags.
- 3. Consult with local retailers to discuss options for plastic bag reduction.
- 4. Have staff draft a bylaw to regulate the use of plastic checkout bags in the Township.
- 5. Another approach, or combination of approaches.

Should the Committee recommend to Council that staff draft a bylaw, the EAC may also want to consider the following for fine-tuning their recommendation:

- 1. Whether engagement with the public, retailers and stakeholders is necessary and at what level.
- 2. Whether the bylaw should be based on the City of Victoria's bylaw, the CRD model bylaw, another bylaw or some combination of these.

#### THE CITY OF VICTORIA



#### OFFICE OF THE MAYOR

Mayor Barbara Desjardins 1229 Esquimalt Road Esquimalt, BC V9A 3P1

December 27, 2017

Dear Mayor Desjardins,

CORPORATION For Information	OF THE TOWNSHIP OF	ESQUIMALT
CAO	Mayor/Council	
RECEIVED:	DEC 2 9 2017	
Referred:	Inja	
For Action	For Response	COTW
For Report	Council Agenda	☐ IC

This letter is a follow up to the letter I sent earlier in the fall with regards to Victoria's Checkout Bag Regulation Bylaw. Some of our colleagues wanted more information and had questions about how the bylaw would work, were the fees and fine too high and so on. Some members of the public and our business community also had these questions.

Through in-depth consultation with the business community since the draft bylaw was published - including primarily retailers - we have revised the bylaw to lower the fees for paper and reusable bags in the first year, we have revised and clarified the definition of a reusable bag, we have lowered the fines, and we have committed to a robust education program before levying any fines.

I enclose for you the City of Victoria staff report that outlines the proposed changes as well as the themes from public engagement. I also attach for you the revised bylaw. Please don't hesitate to contact me directly with any further questions. Please also feel free to have your staff reach out directly to Fraser Work (fwork@victoria.ca), the City's Director of Engineering and Public Works who has ably shepherded this bylaw from idea to final.

Finally, a plea to you! If your community is seriously considering moving in the direction of regulating single use check out bags, please consider using Victoria's bylaw as a model for your bylaw. We hear all the time about a desire for our residents and businesses to have ease as they move from municipality to municipality in our region. Having one bylaw that is the same in each place will create cohesion and ease for our residents and our businesses. Our bylaw is two years in the making, has been examined from all points of view and has been shaped with lots of public input. Again, we are happy to provide any information and assistance that you might require as you move forward.

Here's to more sustainable waste practices, with less plastic bags filing up our already filling-upquickly regional landfill!

Sincerely,

Lisa Helps

Victoria Mayor



## Committee of the Whole Report For the Meeting of December 14, 2017

To:

Committee of the Whole

Date:

December 7, 2017

From:

Fraser Work, Director, Engineering and Public Works

Subject:

Single-Use Checkout Bag Regulation – Draft Bylaw Feedback

#### RECOMMENDATIONS

Council direct staff to:

1. Implement the Checkout Bag Regulation Bylaw, effective July 1, 2018.

- 2. Deliver the proposed engagement and education program between January and December 2018, and
- 3. Include in the 2018 the financial plan an allocation of \$30,000 from 2017 surplus to complete the necessary engagement and education programs.

#### **EXECUTIVE SUMMARY**

The City's new, draft Checkout Bag Regulation Bylaw has been reviewed and feedback has been received from retailers. Since the last report on October 26, staff have met with retailers, held a formal meeting on bylaw technical content, and have met with neighbouring municipal staff to discuss the City's approach to regulating checkout bags.

Retailers raised concerns as to the City's ability to fine an individual when in contravention of the bylaw, raised issues about their ability to select bags that in fact met the desired technical specifications, the timings associated with implementation and several other comments related to possible exemptions, and bylaw intent.

Staff have proposed amendments to the bylaw language to improve clarity and accommodate the necessary changes alongside the required language to support the community's transition away from both plastic bags and excessive use of paper and reusable bags. The changes in the amended bylaw (Annex A) reflect a series of changes, as follows: a new minimum price of 15 cents for paper bags, escalating to 25 cents after one year, an initial minimum price reduction for reusable bags to one dollar for the first year, and raising to two dollars in 2019, exemptions for small paper bags and large plastic bags intended for linens and large bedding items, a relaxation of the term "machine washable" to "washable" (to allow hand washing of reusable bags not designed for washing machine use), and a relaxation on penalties, transition timings, and bag specifications and a few other modifications. The penalties now reflect a maximum charge to an individual. The City has repeatedly highlighted to stakeholders that the intent of bylaw fines is not to be punitive, but to uphold the terms and intent of the bylaw. The City's emphasis is not on enforcement but rather on an education and awareness strategy, which will help promote a smooth transition and reduce any future enforcement needs. The proposed transition timings allow retailers to use their existing bag stock up to January 2019, without penalty. The changes to bag design specifications reduce the technical targets of bag durability to over 100 uses, until such a time that a sustainable bag specification and criteria is more comprehensively developed.

Staff recommend that Council adopt the new regulations, and that these recommendations for implementation on July 1, 2018, accompanied with the necessary engagement, education and other actions already approved from the October 26, 2019 Checkout bag Council decisions.

#### **PURPOSE**

The purpose of this report is to provide Council with feedback from retailers on the proposed draft regulatory framework and implementation plan for single-use checkout bags, and the outline for the engagement and education approach proposed for 2018.

#### BACKGROUND

The free provision of single-use materials represents a systemic business/consumer transaction that privileges short-term convenience over long term sustainability. The current overuse of plastic checkout bags in our community is unsustainable over the long term and has been identified by many in the public to be inconsistent with the values of Victorians. The public engagement and community correspondence to date has suggested that the continued overuse of single use plastic bags is inconsistent with the values of many Victorians. The single-use plastic bag is a powerful, ubiquitous example in our community of 'throw away consumerism', causing materials to quickly become waste after only one or few uses. This continued practice is not merely unsustainable due the upstream and downstream environmental impacts of plastic waste, but due to the wasteful and prevalent cultural norms that are consuming scarce resources in a manner that is not economically or socially sustainable.

While some businesses have already taken action to reduce impacts, the current volume and frequency of disposable checkout bags transactions in our community continues unsustainably. It is clear that regulatory intervention is needed now to curb this undesirable business practice. The proposed bylaw regulating checkout bags represents a legislative intervention that intends to not only limit the use of disposable checkout bags, but also signal to businesses that they must respond to the sustainability impacts from the high volume of plastic checkout bags that are entering our landfill each and every day.

On October 26, 2017, Council endorsed a set of recommendations, which directed staff to:

- 1. Engage with stakeholders on the draft Checkout Bag Regulation Bylaw and report back to Committee of the Whole on December 14, 2017 with the following information:
  - a) A summary of bylaw key points/issues from business and community stakeholders,
  - b) Any recommended changes to the bylaw; and
  - c) Communication, engagement and enforcement considerations and plan, including resource implications and recommendations.
- 2. Measure and report on the performance of the bag regulation program after one year in effect, using waste audits and retailer bag sales data, wherever possible, and analyze and review the complete program with improvement recommendations;
- 3. Include the development of a Single-Use Materials Management Plan in the ongoing development of the City's Sustainable Waste Management Strategy.
- 4. Work with the Province, RecycleBC and other institutions to develop a performance specification for the preferred sustainable reusable bag in order to help business and industry choose amongst options, and also influence bag design sustainability standards.

#### And that Council:

- 5. Request the Mayor to write letters to each of the following key stakeholders to support regional consistency and a wide, renewed focus on waste avoidance programs:
  - a) To the CRD, and Provincial governments before December 2017 requesting support

- for the City's approach to single-use checkout bag regulations and the overall increased investment in innovative strategies with a focus on waste-prevention, and the required stewardship programs to drastically reduce single-use materials, including plastic bags;
- b) To major food producers before January 2018, requesting increased efforts in the development and implementation of improved use/application of recyclable. sustainable and eco-benign packaging for food and household items; and
- c) To the CRD and neighbouring municipalities by the 7th of November 2017 requesting feedback and/or support for the City's single-use checkout bylaw principles and rules.

Since October 2017, staff has discussed the issue with several retailers, and received a number of emails providing feedback on the issue. Staff hosted a roundtable with retailers and the Greater Victoria Chamber of Commerce to discuss the complete bylaw contents. Other one-on-one meetings were held with various retailers and local and regional business representatives. Staff have also held discussions with neighbouring municipalities.

#### **ISSUES AND ANALYSIS**

#### **Business Engagement Key Issues**

Retailers have had an opportunity to provide feedback on the proposed ban since early 2017, but most specifically on the draft bylaw that was published on October 18, 2017. Many stakeholders, have provided additional feedback since the last report to Council, which include the following key themes, and are discussed in detail in Annex B:

- Mandatory Bag (Paper and Reusable) Fees: Several retailers were concerned about the obligation to charge and account for bags, and noted their preference to give bags away for free. The City explained the rationale that free bags were most likely to become waste, and if the community is to avoid excessive paper and reusable bag consumption, fees have to be set accordingly.
- Enforcement and Penalties: Overall, retailers were concerned as to the potential fines that could be administered to their staff for any bag related infraction. At various sessions, City staff expressed their view that penalties are the potential outcome of an infraction of this proposed bylaw. Staff stressed that if any enforcement is to occur it would only commence after a grace-period (January 1, 2019). Fines are a means to provide disincentive for any disregard of the bylaw terms.
- Bylaw Timings: Several retailers requested a delay to the enforcement period, and also requested that their bag stocks could be used before being subjected to any enforcement penalties.
- Bag Specification: Many retailers also highlighted that they need more information / tools if they are to successfully source sustainable reusable bags made to the required durability standards.

These items are explained in detail in Annex B.

#### Proposed Bylaw Amendment Summary

Based on the above analysis and commentary (Annex B), staff recommend the following amendments to the draft bylaw.

- 1. Bylaw Specific Commentary:
  - a. Mandatory Bag Costs:
    - i. Set minimum checkout paper bag fee of 15 cents, increasing to 25 cents

after July 1, 2019.

ii. Set minimum reusable checkout bag fee of one dollar, increasing to two dollars after July 1, 2019.

#### b. Bag Design Specification:

- i. Modify reusable bag performance specification to state "designed and manufactured to be capable of at least 100 uses", until a more robust standard and industry test regime can be developed.
- ii. Change the term "machine washable" to "washable"

#### c. Implementation Timeline:

- i. Retain the bylaw implementation date of July 1, 2018.
- ii. Retain the active enforcement timelines to commence after January 1, 2019.
- d. Enforcement Considerations (penalties and timelines):
  - i. Introduce a minimum and maximum offence for an individual and corporation.

#### e. Bag Exemptions:

- Add exemptions for live fish, small paper bags and very large plastic bags.
- f. **Use of Remaining Bag Stock**: Make provision for bags purchased prior to the first bylaw reading, to be used by retailers, but not permitted after January 1, 2019.

#### Community Awareness and Education Program

An education and marketing campaign is required to gain valuable feedback from business on the proposed draft bylaw, and then to educate the public, business, residents and tourists on the regulation and help transition from plastic to reusable bag. A review of other jurisdictions with experience in bag-bans also found that retailer and public awareness campaigns were central to the successful roll out of Bylaw regulations.

#### Awareness Campaign

Individual retailers and business groups have been consulted as part of the development of the new Bylaw and have all agreed that an awareness campaign should be a considered as part of the City's implementation plans. Staff reviewed how other jurisdictions implemented a bag regulation, and found that retailer and public awareness campaigns were central to the successful roll out of Bylaw regulation, and essential to avoid enforcement requirements. Staff recommend that a multi-faceted awareness campaign launch following the adoption of the Bylaw and continue for one year. The awareness campaign will be evaluated after one year and ongoing activities will be incorporated as part of the City's Waste Management and Climate Leadership engagement and social marketing plans. The primary goals of the campaign are to:

- 1. **Educate**: Make it easy for retail businesses to understand the new Bylaw regulations and make the shift away from single-use check-out bags.
- 2. **Normalize**: Normalize the use of reusable shopping bags by residents and visitors to Victoria,
- 3. **Promote**: Stimulate a shift away from single-use materials, and help raise awareness that "plastics are precious" and not to be wasted on items that quickly become waste after only a single or few uses.

#### Strategic Approach

The multi-faceted campaign will focus on three main groups: retail businesses, residents and tourists, as follows:

#### Retailer Businesses

The City will collaborate and partner with local organizations to develop, implement and evaluate the plan. This will include business and retail groups (Chamber, DVBA, shopping malls, retail associations), advocacy groups (Surfrider, Greenpeace, Glenlyon Norfolk School), and tourism organizations (Tourism Victoria, GVHA), among others.

The strategic approach with retail businesses will focus on providing clear information about the new Bylaw regulations, as well as tools and tips to help implement change within their business operations. As a first step, a focus group will be held to develop a 'Retailer Tool Kit' which could include such things as in-store/point-of-sale customer signage, a list of sustainable bag suppliers and key messaging for staff training. A series of retailer information sessions will be held to help businesses prepare for the July 1, 2018, implementation date for the new bylaw.

#### Residents

A community-based social marketing approach will be used to foster a shift towards increased use of reusable bags by shoppers. Strategies and tactics for this facet of the overall campaign will be developed based on information from studies completed in other jurisdictions and surveys of local shoppers to be completed in collaboration with advocacy groups, educational institutions and large retailers. This research will look at consumer behaviors around reusable bags, along with perceived barriers and benefits to using them. One year after implementation of the Bylaw and the launch of the awareness campaign, a follow-up survey will be conducted to assess behavior change.

#### Visitors

The City with partner with local tourism associations and operators to develop a program to inform visitors once they arrive in the city that Victoria is a plastic-bag-free destination. The main aim will be to assist retailers to inform visiting shoppers about the City's regulations and gain their acceptance and understanding. This program will be in place for the summer and fall tourism season.

#### Strategies and Tactics

The primary strategies will include direct meetings and information sessions with retailers, the development of a Retailer's Toolkit (information and messaging), website and social media content, media relations and online advertising.

In addition, the City will launch a contest for the most creative and compelling idea to inspire people to make the shift to reusable shopping bags. A panel will select the winning entry. The creators will win \$2,000 and the idea may become part of the City's awareness campaign.

The awareness campaign will be evaluated in January 2019, and will incorporate synergies with the City's activities in sustainable waste reduction programs and Climate Leadership.

#### **Enforcement Considerations:**

The enforcement requirements will be directly reduced by the effectiveness of the education campaign and the willingness of businesses to adopt the new standards. Staff has completed an initial scan of communities that have successfully transitioned to this type of legislation. Many of

these communities do not actively enforce, but instead focus on partnering and communications to raise awareness that delivers the required compliance.

#### **OPTIONS AND IMPACTS**

**Option 1**: Approve the amended single-use checkout bag regulation, to implement a ban on plastic bags, which is intended to address unintended consequences raised by stakeholders, and also avoid excessive paper and reusable bag use (**recommended**):

Council direct staff to:

- 1. Implement the Checkout Bag Regulation Bylaw, effective July 1, 2018.
- 2. Deliver the proposed engagement and education program between January and December 2018, and
- 3. Include in the 2018 the financial plan an allocation of \$30,000 from 2017 surplus to complete the necessary engagement and education programs.

**Option 2:** Abandon this particular bylaw and develop an alternative strategy using bag fees/levies only.

This option does not align / comply with existing Council direction to proceed towards a bag ban for single-use plastic checkout bags, but could be explored as an alternative to achieve meaningful bag reductions<sup>1</sup>. This strategy is a milder regulation that is more favourable to many stakeholders, who believe that a levy will achieve significant reductions in plastic bag use, without removing customer choice, and posing less risk of unintended consequences.

**Option 3:** Abandon this particular draft bylaw and develop an alternative strategy for bag reduction education and awareness program, only.

This option does not align / comply with existing Council direction to proceed towards a bag ban for single-use plastic checkout bags, but could be explored as an alternative to achieve a milder regulation that is more favourable to many stakeholders who believe that a slower, education format is the best strategy to realize behavior change, without the disruption of a ban. It is unclear if this strategy could deliver the desired outcome, in reasonable timescales, along with the required corporate sustainability behavior improvements;

Option 4: Take No Further Action.

This option does not comply with expressed Council direction, nor does it address the unsustainable business and customer practice related to accumulating materials that quickly become waste after only a few uses.

**Option 5:** Combination of the above.

Any combination of the above strategies could be explored further, that aim to address a mix of the following key components:

- a) Regulation on single use plastic checkout bags,
- b) Corresponding regulations to minimize any excessive paper or reusable bag use;
- c) Timeline for implementation, and
- d) Education, partnerships, petitioning, and continued waste management strategies.

Committee of the Whole Report

<sup>&</sup>lt;sup>1</sup> An assumption that bag fees will result in meaningful reduction of overall bags in circulation, as experienced in many other parts of the world, including the Hong Kong, Wales, Scotland, England, the Republic of Ireland, and many cities worldwide.

#### **CONSISTENCY WITH CITY STRATEGIES**

#### Accessibility Standards

Considerations related to plastic and checkout bags have been raised by the Accessibility Working Group (AWG) (Annex C). The AWG suggested that bag alternatives should perform well in wet weather and have handles, that grocery store germs should be appropriately managed by suitable customer and retailer action, and that bin liner sales with perfumes may not be acceptable for those sensitive to allergens. All residents are encouraged to adopt reusable bags as standard, and to keep them clean and free from germs. The cleanliness at grocery stores remains outside of the scope of the City and this regulation Reusable bags that perform well in wet weather are available in the marketplace. The elimination of free plastic checkout bags keeps 17 million bags from City residents and many more from visitors — out of the waste management system, but may result in some residents purchasing bin liner bags for their use at home. Bin liner bags may not always be required for safe, dry garbage that is destined for the landfill. Customers should make it known to store managers of their preference to purchase perfume-free bags.

#### Official Community Plan

Reduction of waste, litter and marine debris are consistent with the OCP and the development of vibrant, healthy communities.

#### 2015-2018 Strategic Plan

This initiative is a pathway to achieve Objective 11 of the Strategic Plan. This program supports the avoidance of practices that result in materials quickly becoming waste after only a few uses, and includes actions to incentivise improved sustainable business behaviours, to support the City's economic, social and environmental well-being, vitality and community values.

#### Financial Plan

Staff have already included a proposal for the addition of a sustainable waste-management engineering position (there is currently none) via the upcoming 2018 budget supplemental requests, as part of the financial planning process – to progress this and other important circular economy and City-specific waste prevention, reduction, reuse, recycling and repurposing priorities.

The funds necessary to complete this work can be allocated from available 2017 surplus.

#### **NEXT STEPS**

With Council's endorsement, staff will execute the recommended engagement activity related to the draft bylaw, and report back on progress or any changes as and when required, including commitments to report back formally after one year of implementation.

Respectfully submitted.

Fraser Work, Director

Engineering and Public Works.

Bill Eisenhauer

Head of Engagement,

Report accepted and recommended by the City Manager:

Date: December 8, 2017

#### NO. 18-008

## CHECKOUT BAG REGULATION BYLAW A BYLAW OF THE CITY OF VICTORIA

The purpose of this Bylaw is to regulate the business use of single use checkout bags to reduce the creation of waste and associated municipal costs, to better steward municipal property, including sewers, streets and parks, and to promote responsible and sustainable business practices that are consistent with the values of the community.

#### **Contents**

- 1 Title
- 2 Definitions
- 3 Checkout Bag Regulations
- 4 Exemptions
- 5 Offences
- 6 Penalties
- 7 Severability
- 8 Consequential Amendment to the Ticket Bylaw
- 9 Transition Provisions
- 10 Effective Date

Under its statutory powers, including sections 8(6) of the *Community Charter*, the Council of the Corporation of the City of Victoria, in an open meeting assembled, enacts the following provisions:

#### **Title**

1 This Bylaw may be cited as the "Checkout Bag Regulation Bylaw".

#### **Definitions**

2 In this Bylaw

"Checkout Bag" means:

- (a) any bag intended to be used by a customer for the purpose of transporting items purchased or received by the customer from the business providing the bag; or
- (b) bags used to package take-out or delivery of food
- (c) and includes Paper Bags, Plastic Bags, or Reusable Bags;

"Business" means any person, organization, or group engaged in a trade, business, profession, occupation, calling, employment or purpose that is regulated under the Business Licence Bylaw or the Cannabis Related Business Regulation Bylaw and, for the purposes of section 3, includes a person employed by, or operating on behalf of, a Business;

"Paper Bag" means a bag made out of paper and containing at least 40% of post consumer recycled paper content, and displays the words "Recyclable" and "made from

40% post-consumer recycled content" or other applicable amount on the outside of the bag, but does not include a Small Paper Bag;

"Plastic Bag" means any bag made with plastic, including biodegradable plastic or compostable plastic, but does not include a Reusable Bag;

"Reusable Bag" means a bag with handles that is for the purpose of transporting items purchased by the customer from a Business and is

- (a) designed and manufactured to be capable of at least 100 uses; and
- (b) primarily made of cloth or other washable fabric;

"Small Paper Bag" means any bag made out of paper that is less than 15 centimetres by 20 centimetres when flat.

#### **Checkout Bag Regulation**

- 3 (1) Except as provided in this Bylaw, no Business shall provide a Checkout Bag to a customer.
  - (2) A Business may provide a Checkout Bag to a customer only if:
    - (a) the customer is first asked whether he or she needs a bag;
    - (b) the bag provided is a Paper Bag or a Reusable Bag; and
    - (c) the customer is charged a fee not less than
      - (i) 15 cents per Paper Bag; and
      - (ii) \$1 per Reusable Bag.
  - (3) For certainty, no Business may:
    - (a) sell or provide to a customer a Plastic Bag; or
    - (b) provide a Checkout Bag to a customer free of charge.
  - (4) No Business shall deny or discourage the use by a customer of his or her own Reusable Bag for the purpose of transporting items purchased or received by the customer from the Business.

#### **Exemptions**

- 4 (1) Section 3 does not apply to Small Paper Bags or bags used to:
  - (a) package loose bulk items such as fruit, vegetables, nuts, grains, or candy;
  - (b) package loose small hardware items such as nails and bolts;
  - (c) contain or wrap frozen foods, meat, poultry, or fish, whether pre-packaged or not:

- (d) wrap flowers or potted plants:
- (e) protect prepared foods or bakery goods that are not pre-packaged;
- (f) contain prescription drugs received from a pharmacy;
- (g) transport live fish;
- (h) protect linens, bedding, or other similar large items that cannot easily fit in a Reusable Bag;
- (i) protect newspapers or other printed material intended to be left at the customer's residence or place of business; or
- (j) protect clothes after professional laundering or dry cleaning.
- (2) Section 3 does not limit or restrict the sale of bags, including Plastic Bags, intended for use at the customer's home or business, provided that they are sold in packages of multiple bags.
- (3) Notwithstanding section 3(2)(c) and 3(3)(b), a Business may provide a Checkout Bag free of charge if:
  - (a) the Business meets the other requirements of section 3(2);
  - (b) the bag has already been used by a customer; and;
  - (c) the bag has been returned to the Business for the purpose of being re used by other customers.
- (4) Section 3 does not apply to a Checkout Bag that was purchased by a Business prior to the first reading of this Bylaw.

#### Offence

- 5 (1) A person commits an offence and is subject to the penalties imposed by this Bylaw, the Ticket Bylaw and the *Offence Act* if that person:
  - (a) contravenes a provision of this Bylaw;
  - (b) consents to, allows, or permits an act or thing to be done contrary to this Bylaw; or
  - (c) neglects or refrains from doing anything required be a provision of this Bylaw.
  - (2) Each instance that a contravention of a provision of this Bylaw occurs and each day that a contravention continues shall constitute a separate offence.

#### **Penalties**

6 A person found guilty of an offence under this Bylaw is subject to a fine:

- (a) if a corporation, of not less than \$100.00 and not more than \$10,000.00; or
- (b) if an individual, of not less than \$50.00 and not more than \$500.00

for every instance that an offence occurs or each day that it continues.

#### Severability

If any provision or part of this Bylaw is declared by any court or tribunal of competent jurisdiction to be illegal or inoperative, in whole or in part, or inoperative in particular circumstances, it shall be severed from the Bylaw and the balance of the Bylaw, or its application in any circumstances, shall not be affected and shall continue to be in full force and effect.

#### **Consequential Amendment to the Ticket Bylaw**

The Ticket Bylaw No. 10-071 is amended by inserting, immediately after Schedule Y, the Schedule 1 attached to this Bylaw as the new Schedule Z.

#### **Transition Provisions**

- 9 (1) Section 3(2)(c)(i) is amended by deleting "15 cents" and substituting "25 cents".
  - (2) Section 3(2)(c)(ii) is amended by deleting "\$1" and substituting "\$2".
  - (3) Section 4(4) is repealed.

#### **Effective Date**

10 This Bylaw comes into force on July 1, 2018 except sections 5 and 9 which come into force on January 1, 2019.

READ A FIRST TIME the	14 <sup>th</sup>	day of	December	2017.
READ A SECOND TIME the	14 <sup>th</sup>	day of	December	2017.
READ A THIRD TIME the	14 <sup>th</sup>	day of	December	2017.
ADOPTED on the	11 <sup>th</sup>	day of	January	2018.

"CHRIS COATES"
CITY CLERK

"LISA HELPS" MAYOR

#### Schedule 1

#### Schedule Z Single Use Checkout Bag Regulation Bylaw Offences and Fines

Column 1 – Offence	Column 2 – Section	Column 3 – Set Fine	Column 4 – Fine if paid within 30 days
Providing a Checkout Bag to a Customer except as provided in the bylaw	3(1)	\$100.00	\$75.00
Providing a Checkout Bag without asking whether a customer wants one	3(2)(a)	\$100.00	\$75.00
Providing a Checkout Bag that is not a Paper Bag or Reusable Bag	3(2)(b)	\$100.00	\$75.00
Charging less than a prescribed amount for a Checkout Bag	3(2)(c)	\$100.00	\$75.00
Selling or providing a Plastic Bag	3(3)(a)	\$100.00	\$75.00
Providing Checkout Bag free of charge	3(3)(b)	\$100.00	\$75.00
Denying or discourage use of customer's own Reusable Bag	3(4)	\$100.00	\$75.00

# SINGLE-USE PLASTIC BAG BYLAW BYLAW NO. XXX

## NO. XXX SINGLE-USE PLASTIC BAG BYLAW

#### A BYLAW OF THE CITY OF X LOCAL GOVERNMENT

The purpose of this Bylaw is to prohibit the sale or free distribution of single-use plastic bags within the city of X Local Government.

#### **Contents**

#### **PART 1 – INTRODUCTION**

- 1 Title
- 2 Definitions

#### PART 2 - REGULATIONS

- 3 Sales and distribution by a person
- 4 Sales and distribution by a business
- 5 Alternatives
- 6 Reusable container use

#### **PART 3 – EXEMPTIONS**

7 Permitted distribution by a business

#### PART 4 – ENFORCEMENT

8 Authority

9 Fines

10 Daily fines

#### **PART 5 – GENERAL PROVISIONS**

11 Severability

12 Coming into force

Under its statutory powers, including sections 8(3)(j) and 9(1)(b) of the *Community Charter*, and section 2(1)(a) of B.C. Regulation 235/2008 [*Spheres of Concurrent Jurisdiction - Environment and Wildlife Regulation*], the Council of the City of X Local Government enacts the following provisions:

#### **PART 1 – INTRODUCTION**

#### **Title**

1 This Bylaw may be cited as the "SINGLE-USE PLASTIC BAG BAN BYLAW".

#### **Definitions**

2 In this Bylaw

"Biodegradable Plastic bag" or "Compostable Plastic Bag"

means any bag which is composed of, in whole or part, biodegradable plastic,

Ox-biodegradable plastics, Plastarch Material (PSM), polylactide or any other plastic resin composite that is intended to degrade at a faster rate then non-biodegradable plastic film.

#### "Customer"

means any person purchasing food, goods, or materials or renting goods or materials from a retail business.

#### "Door-Hanger Bag"

means a bag designed to fold flyers, coupons or other advertisements and intended to be left on the door of homes.

#### "Designated Officer"

means the person(s) authorized by City Council to enforce any part of this Bylaw.

#### "Retail Business"

means a business that sells or offers for sale or rent goods or services by retail to the public.

#### "Reusable Container"

means other than a single-use plastic bag, a bag, box or other container that is specifically designed and manufactured for multiple reused that is:

- (i) made of cloth or other machine washable fabric; or
- (ii) made of other durable material suitable for reuse

#### "Single-Use Plastic Bag"

means any bag made with less then 2.25 millimeters thick polyethylene, including biodegradable bags.

#### **PART 2 - REGULATONS**

- No person shall sell or provide single-use bags free of charge or allow single-use plastic bags to be sold or provided free of charge.
- 4 No person employed by or acting on behalf of a person carrying on a retail business shall sell or provide single plastic bags free of charge or allow single-use plastic bags to be sold or provided free of charge.
- Nothing in this Bylaw shall preclude owners of retail businesses from making alternatives to single-use plastic bags, such as reusable containers and bags, available for sale or free of charge to customers.
- No retail business shall deny the use of any reusable bag by a customer for the transport of purchased items.

#### **PART 3 – EXEMPTIONS**

- 7 A retail business shall be permitted to provide bags for the following circumstances:
  - (i) bags used by customers inside retail businesses established to package bulk items, but not limited to such as fruit, vegetables, nuts, grains, candy or small hardware items such as nails and bolts;
  - (ii) bags used to contain or wrap frozen foods, meat or fish, flowers or potted plants, whether pre-packaged or not;
  - (iii) bags used to protect prepared foods or bakery goods;
  - (iv) bags provided by pharmacists to contain prescriptions drugs;
  - (v) door-hanger bags;
  - (vi) laundry-dry cleaning bags; and
  - (vii) bags sold in packages containing multiple bags intended for such uses including, but not limited to garbage bags, pet waste bags, yard waste bags, or recycling bags.

#### PART 4 - ENFORCEMENT

- A designated officer may enter any retail business established and may make examinations, investigations and inquires for enforcement purposes.
- 9 Every person or retail business who contravenes a provision of this Bylaw is guilty of an offence and is subject to the penalties imposed by this Bylaw, the Ticket Bylaw and the *Offence Act*.
- 10 Each day that a contravention of a provision of this Bylaw continues is a separate offence.

#### **PART 5 – GENERAL PROVISIONS**

- If any provision or part of a provision of this Bylaw is declared by any court or tribunal of competent jurisdiction to be illegal or inoperative, in whole or in part, or inoperative in particular circumstances, the balance of the Bylaw or its application in any other circumstances shall not be affected and shall continue to be in full force and effect.
- 12 This Bylaw shall come into force on the date of adoption.

**"X"**CORPORATE ADMINISTRATOR

MAYOR



#### **MEMORANDUM**

**DATE:** September 17, 2018

**TO:** Environmental Advisory Committee

FROM: Tricia deMacedo, Policy Planner

**SUBJECT:** Environmental options for cigarette butt disposal

#### **Referral from Council**

Operational Strategies 2015-2019: Support revitalization and beautification initiatives along Esquimalt Road.

 Refer cigarette butt program to Environmental Advisory Committee for recommendations and options.

#### **Background**

Cigarette butts account for a large proportion of the litter found on city streets. Since the implementation of indoor and public area smoking bans, smokers have less access to ash trays and other disposal mechanisms. Many smokers incorrectly believe that cigarette filters are biodegradable, but in fact they are composed of cellulose acetate, a form of plastic that is very slow to degrade in the environment. Additionally, cigarettes contain a multitude of environmental toxins that can be very harmful to wildlife, including aquatic organisms. As most littered cigarettes will eventually find their way through the storm drain system into the ocean, this creates a real environmental problem.

Many options exist for reducing cigarette litter, including collection, recycling, enforcement of anti-littering bylaws, education, additional maintenance etc. Each of these options can be tried in isolation, or in combination. It is very difficult to find information on the effectiveness of each of the options, but one recent study in Australia (for marine plastic debris) suggests that integrated solutions may be most effective and that targeting a specific waste stream (such as cigarette butts) can make a difference (Appendix A).

#### **Collection and Recycling**

Several municipalities, including Victoria, have installed cigarette disposal canisters in targeted areas where cigarette litter has been found to be higher than average. In some of these cases, the municipality is partnering with a non-profit organization to run the program. For example, in Kamloops, the canisters are purchased, installed and maintained by the Kamloops Central Business Improvement Association. Victoria's canisters were purchased by the City, but are maintained by the Downtown Victoria Business Association (DVBA). The material deposited in the containers is sent to TerraCycle, a company which recycles cigarettes and cigarette packaging. TerraCycle pays for the material (by weight) back to the organization. The DVBA has opted to send their cheques directly to Surfrider. In its first year of operation, Surfrider estimates that over one million butts have been collected.



In Vancouver, United We Can is responsible for maintaining the containers and shipping the material to TerraCycle. United We Can is a non-profit employment agency that hires downtown eastside residents exclusively.

Physicians for a Smoke Free Canada (PSFC) has taken a strong stand against any public 'ashtray' programs such as the ones in Victoria and Vancouver. Their rationale is that receptacles re-normalize smoking in public areas by creating a zone where smokers congregate, creating areas of second hand smoke for other members of the public. In addition, TerraCycle is funded primarily by the tobacco industry. Finally, PSFC questions the effectiveness of the canisters at actually reducing litter (Appendix B).

Surfrider reports that two other issues have developed with the canisters in Victoria. Most of the canisters had to be moved, as they were installed within the no-smoking zone enforced by the CRD and smokers were congregating within the no-smoking zone. The Clean Air Bylaw 3962 requires that all smoking outdoors must be at least 7 m from a window, door or air intake. A second issue was vandalism of the canisters by people wishing to salvage cigarette butts to smoke.

#### **Collection and Disposal**

Another disposal option is personal pocket ashtrays, which are small, closed containers that the smoker can keep on their person and dispose of the ashes at home or in a proper receptacle. Edmonton and Vancouver are promoting the use of these pocket ashtrays as part of their litter reduction strategy (Appendix C). Cigarette butts are considered regular household garbage by the CRD and are accepted at Hartland as such. Garbage cans with built-in ashtrays are available and could be used in place of the existing garbage cans emptied by Public Works crews. More regular street sweeping could also take place in 'hotspots' around the municipality. These options will have resource implications for Engineering and Public Works.

#### **Education Programs**

Many more municipalities are fighting cigarette litter through educational campaigns. Clever slogans, hashtags and posters are used to promote responsible disposal and de-normalize butt tossing. Examples include: #ButtfreeYYC (Calgary), Hold on to Your Butts! (Surfrider), Don't be a Tosser (Australia) etc. (Appendix D). However, like any public education campaign, the educational message must be continual as a one time effort is unlikely to elicit long-term changes in behaviour.

#### **Deposit Programs**

The Physicians for a Smoke-Free Canada have proposed a provincial deposit system for cigarettes based on the beverage container model already in use for decades. Their proposal is outlined in Appendix B. Council has endorsed this strategy by forwarding a resolution to the 2016 UBCM which was in turn forwarded to the Province for their response (Appendix E).



#### **Options for Recommendations to Council**

- 1. Do nothing.
- 2. Have staff further investigate the extent of the problem within the municipality and report back on this to the Committee before taking any further steps.
- 3. Have staff prepare a report on the feasibility of establishing a cigarette collection program in the municipality.
- 4. Engage a third party to prepare and deliver an outreach program on cigarette litter.
- 5. Another approach, or combination of approaches.

Int. J. Environ. Res. Public Health 2009, 6, 1691-1705; doi:10.3390/ijerph6051691

#### OPEN ACCESS

International Journal of
Environmental Research and
Public Health
ISSN 1660-4601
www.mdpi.com/journal/ijerph

Communication

### Cigarettes Butts and the Case for an Environmental Policy on Hazardous Cigarette Waste

Thomas E. Novotny 1,2,\*, Kristen Lum 1, Elizabeth Smith 1, Vivian Wang 1 and Richard Barnes 1

Received: 2 April 2009 / Accepted: 19 May 2009 / Published: 20 May 2009

**Abstract:** Discarded cigarette butts are a form of non-biodegradable litter. Carried as runoff from streets to drains, to rivers, and ultimately to the ocean and its beaches, cigarette filters are the single most collected item in international beach cleanups each year. They are an environmental blight on streets, sidewalks, and other open areas. Rather than being a protective health device, cigarette filters are primarily a marketing tool to help sell 'safe' cigarettes. They are perceived by much of the public (especially current smokers) to reduce the health risks of smoking through technology. Filters have reduced the machine-measured yield of tar and nicotine from burning cigarettes, but there is controversy as to whether this has correspondingly reduced the disease burden of smoking to the population. Filters actually may serve to sustain smoking by making it seem less urgent for smokers to quit and easier for children to initiate smoking because of reduced irritation from early experimentation. Several options are available to reduce the environmental impact of cigarette butt waste, including developing biodegradable filters, increasing fines and penalties for littering butts, monetary deposits on filters, increasing availability of butt receptacles, and expanded public education. It may even be possible to ban the sale of filtered cigarettes altogether on the basis of their adverse environmental impact. This option may be attractive in coastal regions where beaches accumulate butt waste and where smoking indoors is increasingly prohibited. Additional research is needed on the various

<sup>&</sup>lt;sup>1</sup> Center for Tobacco Control Research and Education University of California San Francisco, San Francisco, CA, 94143, USA; E-Mails: kristen.lum@ucsf.edu (K.L.); Libby.Smith@ucsf.edu (E.S.); Vivian.wang@ucsf.edu (V.W.); Richard.barnes@ucsf.edu (R.B.)

<sup>&</sup>lt;sup>2</sup> Graduate School of Public Health, San Diego State University, San Diego, CA 92186, USA

<sup>\*</sup> Author to whom correspondence should be addressed; E-Mail: tnovotny@mail.sdsu.edu; Tel.: +1-619-594-3109; Fax: +1-619-594-6112

policy options, including behavioral research on the impact of banning the sale of filtered cigarettes altogether.

Keywords: cigarette litter; waste; butts; smoking; filters; environment

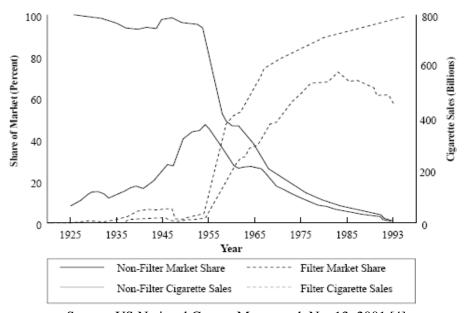
#### 1. The History and Function of Cigarette Filters

The cellulose-acetate filter was added to cigarettes in the 1950s in the wake of increasingly convincing scientific evidence that cigarettes caused lung cancer and other serious diseases [1]. Filters were found to reduce the machine-measured yields of tar and nicotine in smoked cigarettes, and at first this seemed to be a healthy technological improvement in the cigarette product. In 1966, a review by the US Public Health Service concluded that, "The preponderance of scientific evidence strongly suggests that the lower the 'tar' and nicotine content of cigarette smoke, the less harmful would be the effect." Following this report, both Government and tobacco industry scientists conducted studies of cigarette manufacturing and tobacco cultivation that could lead to lower "tar" and nicotine yields. Cigarette manufacturers promoted such products, especially filtered cigarettes, through advertising that included an implied health claim for 'safer' cigarettes. Some epidemiological studies have alluded to reduced health impacts attributable to lower tar- and nicotine-yielding cigarettes [2,3]; in fact, the sales-weighted averages of these constituents in cigarettes has dramatically declined over the last 50 years. Nevertheless, smokers who switched to these low-yield brands did not substantially alter their exposure to tar and nicotine because of compensatory smoking (deeper and more frequent puffing, plugging ventilation holes on filters, etc.) and the changes in the way cigarettes were manufactured. To address this confusion, the National Cancer Institute undertook a comprehensive review of low-tar and low-nicotine yielding cigarettes' potential health benefits. Its 2001 Monograph 13, Risks Associated with Smoking Cigarettes with Low Machine- Measured Yields of Tar and Nicotine, [4] concluded that "Epidemiological and other scientific evidence, including patterns of mortality from smoking-caused diseases, does not indicate a benefit to public health from changes in cigarette design and manufacturing over the last fifty years." In addition, a 2006 US Department of Justice ruling against the tobacco companies, at present stayed and pending appeal, "bans terms including "low tar," "light," "ultra light," "mild," and "natural" that have been used to mislead consumers about the health risks of smoking and prohibits the tobacco companies from conveying any explicit or implicit health message for any cigarette brand" [5]. Over the last 50 years, smokers switched almost entirely (99%) to filtered cigarettes (Figure 1), and nearly all of these sold in the United States are made of cellulose acetate, a plastic product [6].

Filters likely discourage many smokers from making the quit attempt because they still cling to the belief that filtered cigarettes are protective of their health; thus, filters may have overall a detrimental effect on population health. Filters are a rod of about 12,000 fibers, and fragments of this material become separated from the filter during the manufacturing process and may be released during inhalation of a cigarette. It has been reported in tests on 12 popular brands that fibers are inhaled and also ingested, and filter fibers have been reportedly found in the lung tissue of patients with lung

cancer [7]. Furthermore, consumer preference for filtered cigarettes may have been associated with a histological shift in predominant lung cancer type from squamous cell to the more aggressive adenocarcinoma cell type [8].

**Figure 1.** Market share and sales of filtered and non-filtered cigarettes in the United States, 1925-1993.



Source: US National Cancer Monograph No. 13, 2001 [4]

Currently, cigarette manufacturers are contemplating and test marketing additional "reduced harm" products, including new types of filters that may reduce toxic constituents in cigarette smoke (these new filters also contain cellulose acetate as well as new filter materials) [9]. Nonetheless, filters continue to be primarily a marketing tool to help sell cigarettes.

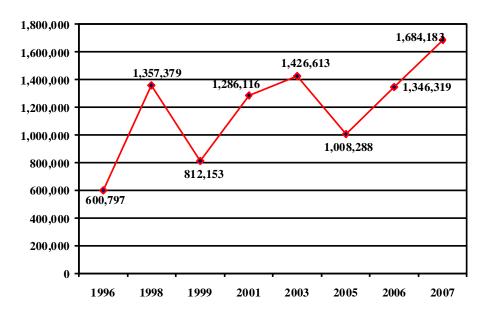
#### 2. The Environmental Problem of Cigarette Butts

Whatever their direct health impact on or benefit to smokers, cigarette filters pose a serious litter and toxic waste disposal problem. Cellulose acetate is photodegradable but not bio-degradable. Although ultraviolet rays from the sun will eventually break the filter into smaller pieces under ideal environmental conditions, the source material never disappears; it essentially becomes diluted in water or soil [10,11].

While the environmental impact of a single disposed cigarette filter is minimal, there were 1.35 trillion filtered cigarettes manufactured in the United States in 2007, and of these, more than 360 billion were consumed here [12]. About 680,000 tons of cellulose acetate was used in the production of these filtered cigarettes. With 5.6 trillion filtered cigarettes consumed worldwide in 2002, and nine trillion expected by 2025, the global environmental burden of cigarette filters is also significant [13]. It is estimated that 1.69 billion pounds (845,000 tons) of butts wind up as litter worldwide per year [14].

Most attention has been given to the cigarette butt waste problem because of the filters that end up on beaches. The annual Ocean Conservancy's International Coastal Cleanup (ICC) reports that 'cigarette butts have been the single most recovered item since collections began' [15]. Although volunteers collected 1,684,183 cigarette butts (33.6% of all debris) in the 2007 US Cleanup (Figure 2), these data likely underestimate total discarded filters. For example, a comprehensive cleanup in Orange County, California, yielded 20 times more butts than the estimated ICC total for that beach for the same year [16].

**Figure 2.** Cigarettes and Cigarette Filters Collected in the United States in the International Coastal Cleanup, 1996-2007. Source: Ocean Conservancy 2007.



The cigarette butts recovered from beaches are not necessarily due to cigarettes that are smoked on them. Butts are dropped on sidewalks or thrown from moving cars; they then move to the street drains, and thus to streams, rivers, and the oceans. In addition, since the early 1980s there has been increasing concern about the health consequences of passive smoking, and thus more smoking occurs outdoors, likely contributing to this chain of events. As a consequence, cigarette butts become unsightly and difficult-to-remove waste in multiple locations, including streets, storm drains, streams, and beaches. In a review of litter cleanup project reports, the *Keep America Beautiful Campaign* reported that cigarette butts comprise from 25 to 50 percent of all collected litter items from roadways and streets. One report from a college campus estimated the cost of cigarette litter cleanup at \$150,000 for a single, two-week-long effort. No other economic impact studies have been reported [17]. Their non-biodegradability means that they also increase landfill demands, add costs to municipalities' waste disposal programs, and create environmental blight in public spaces.

Discarded cigarette butts are not only unsightly; they are also toxic in and of themselves. Environmental groups have expressed concern for marine creatures that ingest littered filters [18,19]. A 2006 laboratory study found that cigarette butts were found to be acutely toxic to a freshwater cladoceran organism and a marine bacteria (microtox) and that the main cause of toxicity was attributed to nicotine and ethylphenol in the leachates from cigarette butts [20]. A 1997 report from the

Rhode Island Department of Health reported 146 cases of cigarette butt ingestion among children < 6 years old; of these, approximately one-third displayed transient nicotine toxicity [21]. Even if properly disposed, cigarette butts are hazardous solid waste. It is unknown as to how many must be consumed to cause adverse health effects in marine animals such as birds or mammals.

#### 3. The Tobacco Industry Response

In the 1990s, market research prompted cigarette manufacturers to recognize that environmental concerns about discarded butts might become more important to consumers and policymakers. A 1992 Philip Morris USA internal memo identified cellulose acetate filters as non-degradable material and reported that Eastman Chemical Products Company and Celanese Fibers Company were conducting research on cellulose acetate degradation [22]. Alternatives to the cellulose acetate filter were also pursued by Brown & Williamson Tobacco Company [23] and RJR, whose 'Degradable Team' reported in the minutes from an April 4, 1996, meeting that it had tested five biodegradable filter prototypes in sensory evaluation tests. However, these filters were found to be unacceptable to smokers: "all products had greater artificial lit aroma, less tobacco taste, more artificial taste, more generic taste, less sweet, more bitter, less tobacco aftertaste, greater bitter, non-tobacco aftertaste and greater drying." [24]. In 1998, RJR scientists filed a US patent on a "degradable smoking article" that utilized dissociable cigarette parts to accelerate disintegration by increasing exposure of surface areas to "natural elements". However, their research found that the disintegrated filter components were still deposited in the environment as small particles [25].

CORESTA, the tobacco industry's international research organization, formed a 'Cigarette Butt Degradability Task Force' in the early 1990s to "develop a test to determine the rate of degradability of a complete cigarette butt" [26]. The task force's membership of cigarette makers, filter suppliers, paper manufacturers, and adhesive companies displayed extensive interest in biodegradability research. If a biodegradable filter were marketable, these industries would reap significant financial benefits through a new marketing tool that would help smokers identify themselves as environmentally friendly. However, the task force's final report stated that their objective "was made more difficult by the fact that most of the available reference work supported efforts to enhance stability not degradability, and were applied to single component products, not systems composed of different types of materials". The task force disbanded in 2000 after CORESTA found that it was "unlikely that the level of interest could justify the scale of the effort", which would require more data collection and the development of instrumentation to establish a standardized test for cigarette filter degradation [27].

In 2000, Philip Morris' consumer research on cigarette litter found that the issue was not "top of mind" for smokers, that there is ritualized behavior in the disposal of cigarette butts, and that "adults who choose to smoke need convenient alternatives to cigarette disposal" [28]. As a result of this research, Philip Morris proposed distribution of convenient disposal receptacles and direct communication with smokers to encourage them to dispose of butts in an environmentally conscious manner. Subsequently, Phillip Morris became one of the major supporters of the *Keep America Beautiful Campaign* ([KAB] a non-profit, grass roots organization), which encourages individual responsibility for proper butt disposal and other wastes [29]. However, there are no evaluation data on

the effectiveness of such campaigns in reducing butt litter. It may be that Philip Morris' interests lie primarily in shifting the responsibility for butt waste to the consumer; KAB's efforts focus on public education and increasing availability of butt receptacles, including hand held ashtrays; its campaigns support Philip Morris' corporate social image [30]. In 2007, it received a \$3 million grant from Philip Morris USA for its butt litter campaigns [31].

The tobacco industry has considered this problem further with some of their own research on filter degradability. Philip Morris documents described "Project Natural" at the 1990 Philip Morris International Marketing Meeting, where the litter issue and the problems with filter degradability were discussed. The presenter stated: "to avoid this problem, the simplest solution would be to eliminate the filter! But this of course would defy consumer preference and make it difficult to control tar and nicotine levels" [32].

In a 2006 Stakeholder analysis and response project, RJR described these internal and industry-sponsored programs as mainly to develop test methods that define the photo, water and biological degradability of existing and new materials. RJRs final message to stakeholders was, "Our opinion is that the *current state of the art in material technology has not produced a material that is commercially feasible*. While some degradable materials have been identified, they are unsuitable because of poor taste, short shelf-life and physical instability during smoking, manufacturability and/or material variability. The company is continuing to look at all technological solutions to biodegradability" (emphasis added) [33].

Currently, there is no evidence that the industry has developed a marketable, degradable filter. However, one biotech company (Stanelco) has developed a food-starch-based filter and has appointed Rothschild International, to develop and test this device for possible widespread adoption [34]. Starch used in the filter is essentially a carbohydrate polymer found in foods such as potato and rice. The biodegradability of such filters could theoretically reduce the environmental impact of butt waste by being compostable. Stanelco has touted this filter as not only eco-friendly but 30 to 50% cheaper than cellulose acetate filters at bulk prices. Compared with cellulose acetate filters, the company claims that starch-based filters may also have health effects because smokers will not be exposed to "fall-out" of cellulose acetate fragments entering the lung through inhalation [35]. Even with starch-based composition, these filters may take two months to biodegrade, and they would still release toxic filtrates into the environment when they do so.

#### 4. Community and State Response

In response to the issue of cigarette butt litter, some municipalities have banned smoking on beaches, including in Chicago, San Diego, and other areas (Table 1). These bans are widely seen as a good first step to controlling butt waste, but because of the runoff from streets to waterways to ocean, they will not eliminate them from beaches. Butts despoil these heavily used public spaces, which then become the responsibility of the state and local authorities to clean up. In California, a law that would ban smoking on all 64 state-run beaches and State Parks in California failed by two votes in 2004 in the state Senate and is currently under consideration again [36]. There appears to be considerable

interest in beach smoking bans, mainly at the local level, where responsibility for cleanup resides. Detailed cost analyses and impact assessments on such bans are as yet lacking.

**Table 1.** Smoking bans on beaches by State and Municipality, United States, 2008.

State	Municipality	
California	Albany, Belmont, Calabasas, Capitola, Carmel, Carpinteria, Del Mar, El Cajon, El Segundo,	
	Encinitas, Hayward, Hermosa Beach, Imperial Beach, Laguna Beach, Loma Linda, Los	
	Angeles, Los Angeles County, Manhattan Beach, Monterey, Morro Bay, Novato, Oceanside,	
	Pacific Grove, Pacifica, Palos Verdes Estates, San Diego, San Mateo County, Sand City, Santa	
	Cruz, Santa Monica, Seal Beach, Torrance	
Florida	Jupiter Island	
Hawaii	Hawaii County	
Iowa	Des Moines, Johnson County	
Illinois	Chicago, Highland Park, Lake Forest, Wilmette	
Massachusetts	Abington, Braintree, Grafton, Holliston, Sharon, Tyngsborough, Upton, Westford	
Michigan	Grand Haven Township, Howell, Ottawa County	
Minnesota	Minnesota Battle Lake, Bloomington, Buffalo, Fergus Falls, Hennepin County, Hoffman, Ramsey Co	
	Washington County	
New Hampshire	Gilford, Windham	
New Jersey	Brick Township, Dover Township, Lavallette Borough, Mount Arlington Borough, Seaside	
	Park, Ship Bottom Borough, Surf City Borough	
New York	Kingston	
Puerto Rico	Puerto Rico	
Rhode Island	Westerly	
South Carolina	Surfside Beach	
Utah	Davis County	
Washington	Lake Stevens	
Wisconsin	Madison	

Source: Personal communication, B. Frick, Americans for Nonsmokers Rights, December 2008

#### 5. Policy Options to Reduce the Environmental Impact of Cigarette Butt Litter

Our previous report [37] established the environmental externalities of smoking, focusing on the enormous number of butts reported in international beach cleanups and on the hazardous wastes resulting from cigarette manufacturing processes. There is precedent for enacting state and local regulation to protect the environment from non-biodegradable solid waste from consumer products; we suggest several models for possible action against cigarette butt waste.

#### 5.1. Labeling

Some products carry warnings printed on them advising consumers not to litter the packages or the product (aluminum cans, bottles, plastics, etc). This has never been proposed as a means of warning smokers about the non-biodegradability of filters (or of package litter). A warning label of sufficient

size could be required as part of the proposed FDA regulatory authorization that simply states: "Cigarette filters are non-biodegradable hazardous waste. Disposal of filters should be in accordance with state law" (with appropriate state law requirements included on each package sold in the each state). These could go on to describe potential human toxicity, methods for safe handling, etc.

#### 5.2. Deposit/Return

In the 1970s, Oregon and several other states introduced "bottle bills" as a way to reduce the hazards, clean-up costs, and waste of discarded glass containers (mostly from beverages). Deposit/recycling laws have been implemented around the world, in fact. These laws mandate that consumers pay a deposit when they purchase specified items which will be returned when the container is returned. The Oregon law is credited with reducing litter and increasing container recycling, with return rates of up to 90%. The Oregon Department of Environmental quality reports that discarded items covered by the laws were reduced from 40% of roadside litter collected to 6% [38]. In South Australia, there has been similar success with bottle bills and electronics [39]. Similarly, cigarettes could be sold with a "butt deposit" to be refunded when the pack is returned to the vender with the butts. As with bottles and cans, this could spark both more care on the part of smokers and provide income to others who retrieve any butts that smokers discard. It would also increase the opportunity costs of smoking, thus perhaps having a salutary effect on reduced cigarette consumption.

#### 5.3. Waste Tax

Concern about toxic waste resulting from technology products such as computers, telephones, and televisions, has given rise to legislation implementing a consumer funded Advanced Recycling Fee (ARF); this is assessed at the point of purchasing electronic products [40]. These fees are intended to pay for the costs of recycling the item and disposing properly of any non-recyclable material. The fees are minimal (compared to the cost of the products), ranging from \$6 to \$10. Of note, this system functions with complete support of the manufacturers themselves, with core principals calling for shared responsibility. Adding a waste *fee* to cigarettes is another possibility, and the funds collected could be used to mitigate environmental consequences and to fund research on butt waste. A fee or tax has the added advantage of increasing costs of cigarettes, thereby reducing consumption. Such fees would have to be supported by careful litter audits and economic costs of cleanup studies.

#### 5.4. Litigation

To date, most litigation against the tobacco industry has focused on the health costs that others (individuals, insurance companies, states) end up paying as a result of cigarette consumption. Similarly, the industry could be held responsible for environmental impacts associated with the sales of their product. In addition, although the tobacco industry has yet to produce a commercially viable biodegradable filter, it may be that there is a technological solution which has so far not met economic requirements. Litigation may change that equation.

Litigation has been pursued against manufacturers of products that damage the environment. In fact, entire communities have filed class action lawsuits to sue polluters, and these cases are typically based on two tort theories: negligence and nuisance. Negligence is a tort theory that permits someone who is injured by another's unreasonable conduct to recover money damages. The primary element of a successful negligence case is proof of the defendant's wrongful conduct, or failure to take reasonable steps to prevent the harm. Nuisance is a tort theory that protects someone's right to use and enjoyment of their real property [41]. Settlement of these cases sometimes requires abatement as well as restitution. Interesting to note is that the responsibility of hazardous waste abatement may include the waste generator who is in part responsible for the waste handler's actions. Thus, if the handler does a poor job and pollutes the environment, the generator may be responsible for cleanup. One could imagine beach communities in particular resorting to litigation to hold accountable the waste generator (in this case the cigarette manufacturers) for the action of the waste handler (the smoker).

#### 5.5. Fines

Fines are levied by local communities for violations of smoking bans on beaches and in enclosed places. Fines for littering may be as high as \$1,000 in some states if the littering subject can be observed and cited by authorities. Fines could also be levied by states (or municipalities) against cigarette manufacturers based on the amount of cigarette waste found either as litter or as properly disposed waste. These fines would at least partially compensate for the costs of cleaning up and disposing of cigarette waste; they would certainly be passed along to consumers, thus increasing the costs of smoking and reducing consumption.

#### 5.6. Mandatory Filter Biodegradability

Food and Drug Administration (FDA) Regulation of Tobacco products is now being considered for authorization under the US Senate *Family Smoking Prevention and Tobacco Control Act* (already passed by the House of Representatives and not approved in the Senate). If passed, this act would:

- Empower the FDA to establish a periodically re-evaluated content standard, and require changes in tobacco products to meet the standard.
- Grant the FDA authority to require changes in current and future tobacco products to protect public health, such as the reduction or elimination of harmful ingredients, additives and constituents, including smoke constituents.
- Empower the FDA to reduce nicotine yields to any level other than zero (reserved to Congress). This means the FDA can reduce nicotine to minimal levels, including levels that do not lead to addiction.
- Authorize the FDA to require the reduction or removal of harmful or potentially harmful constituents to protect the public health [42].

Clearly, this legislation would have implications for states that hope to regulate tobacco products in any way, and there is concern among tobacco control advocates as to whether such regulation would pre-empt state actions. However, there is already precedent for state regulation of tobacco projects.

Cigarettes are regulated by 22 states to be fire safe if sold in a specific state. Canada has become the first nation to mandate the sale of fire-safe cigarettes [43]. State legislation to mitigate a significant non-point-source of environmental pollution may be an effective means of either prohibiting the sale of cellulose-acetate filtered cigarettes or mandating that only biodegradable filtered cigarettes could be sold in the state.

#### 5.7. Ban Disposable Filters

Some products known to be hazardous or prone to improper disposal have simply been banned entirely from sales and distribution. For example, pop-tops on aluminum cans [44], which were frequently littered and caused injury when stepped on, and plastic tampon applicators, which even when disposed of properly tended to wash up on beaches [45] were regulated by state laws. Thus, States could simply ban the sale of filtered cigarettes if these were to be considered as an environmental problem. This controversial proposal requires further research to determine its potential individual and population health impacts. There may in fact be significant positive behavioral impacts in reducing smoker's consumption of unfiltered cigarettes or reducing initiation among children.

#### 5.8. Consumer Education and Responsibility

There are several grass roots organizations and websites addressing the issue of cigarette butt waste, both in the United States and elsewhere around the world (Table 2). These focus primarily on consumer education and responsibility to dispose of butts properly. Many, such as KAB, may be funded by the tobacco industry [46]. However, it is an accepted notion in health behavior science that human behavior changes only slowly if at all unless there are costs, benefits, and social norms to support these changes. Butt littering is for the most part an ignored behavior among smokers; it may even be a part of the smoking ritual. Added to this is the now widespread regulation of indoor smoking, which causes smokers to retreat to the street and sidewalk where there may be no butt receptacles. The question arises as to the responsibility to provide suitable receptacles. Should these be the property owner, the city or county, or should there be requirements for all smokers to carry handheld ashtrays? If they did carry and use these, how would disposal of the ashtray contents be regulated or assured?

Organization	Main Focus	Website
Surfrider	Clean Water, Beach Access, Beach	http://www.surfrider.org/a-z/cig_but.php
Foundation	Preservation and Protecting Special	
	Places	
Earth Resource	Environmental Education	http://www.earthresource.org/events/hotyb-
Foundation		current.html
Clean Virginia	Waterway cleanup	http://www.longwood.edu/cleanva/cigarettelitte
Waterways		rhome.html
Ocean Conservancy	International Coastal Cleanup	http://www.oceanconservancy.org/site/PageSer
		ver?pagename=icc_home
Queensland Litter	Anti-litter advocacy	http://www.qldlitter.com/litter_facts.php
Prevention Alliance		
ButtsOut	Personal Ashtrays	http://www.buttsout.net/UK

**Table 2.** Environmental Groups Concerned with Cigarette Butt Waste.

Public information campaigns that involve all stakeholders will be important no matter what the policy approaches to controlling butt waste. Public enforcement of littering regulations will follow changing social norms. Increased regulatory activity at the state and local level will follow raised awareness of the butt litter problem. Increased publicity about 'green' behavior may affect the littering behavior of smokers. Added to this are fines, fees, and other economic disincentives, and smokers may change behavior even more. One thing is certain, however: when cigarette consumption decreases as a result of reduced prevalence of smoking, butt waste decreases. In the last ten years, the per capita consumption of cigarettes declined almost 20% in the United States [4].

#### 6. Discussion

Cigarette butts are undoubtedly an environmental problem causing blight on beaches, streets, sidewalks, waterways, and public spaces. Most of the policy approaches proposed above would likely have two benefits to health and the environment. First, they would likely increase the costs of cigarettes to consumers, as manufacturers would pass along the costs of taxes, fees, litigation, or new production technology. Increasing the price of smoking is a well-established way to reduce smoking [47]. Even a returnable deposit, if large enough, might deter some from starting to smoke, since it would require a larger initial outlay. Reduced smoking rates would in turn lead to fewer discarded butts. The health consequences of changing or removing filters from the market altogether are not known. However, the possibilities range from improved population health due to decreased consumption (if smokers were induced to quit by the absence of their preferred cigarettes, and the loss of the psychological "safety" of filters); worse population health (if smokers continued to smoke unfiltered, somewhat more hazardous cigarettes); or unchanged population health (if new products created in response to these regulations replaced filtered cigarettes, or if filters are confirmed to have no appreciable health benefits). New products might include cigarettes with toxins removed in some other way, or the introduction of non-disposable, reusable filters. Under the new FDA regulations that may be authorized by Congress, changes in the tobacco products would need to undergo FDA review.

Second, adoption of these policies would mean no longer allowing the industry to externalize the costs of the cleanup of butt litter. The current industry approach (as with its historical approach to the direct health consequences of smoking) is basically to 'blame the victim'. In this context, the smoker is the litterer and thus it is his or her responsibility to take care of the butt disposal. However, it is clear that municipalities, businesses, states, voluntary groups, and other external bodies bear the brunt of most butt waste cleanup costs.

Although some aspects of tobacco product policy in the United States are reserved for the Federal government (for example, labeling), others are clearly in the camp of state or local intervention. For example, states are increasingly requiring that cigarettes sold be designed for Reduced Ignition Propensity (RIP), to reduce fire risk. Pollution mitigation fees can be charged at numerous governmental levels. It is clear that under current conditions Federal authority is not required to adopt state or local policies aimed at reducing cigarette litter and waste.

There may be drawbacks or unintended consequences to many the policies to control butt waste. Would biodegradable filters make smoking more acceptable, or allow cigarette companies to tout their products as "green"? Would states or municipalities come to rely on taxes, fines, or fees, and therefore be reluctant to impose new tobacco control laws that might reduce revenue? Would the negative health consequences of banning or changing filters outweigh the behavioral changes anticipated in removing them from the market? Clearly, more research is called for on many of these issues, especially on the behavioral effects on smokers and potential smokers, and on the economic impact of butt waste cleanup.

#### Acknowledgements

This research was supported a University of California Tobacco Related Disease Research Program IDEA Grant, No. 17IT-0014, and in part by NCI Grant CA-61021. The funding agencies had no role in the conduct of the research or preparation of the manuscript.

#### References

- 1. US Department of Health and Human Services. *The Health Consequences of Smoking: the Changing Cigarette—A Report of the Surgeon General, 1981.* DHHS publication no. (PHS)81-50156. Department of Health and Human Services, Public Health Service: Rockville, MA, USA, 1981.
- 2. Engeland, A.; Haldorsen, T.; Andersen, A.; Tretli, S. The impact of smoking habits on lung cancer risk: 28 years' observation of 26,000 Norwegian men and women. *Cancer Cause. Control* **1996**, *7*, 366-376.
- 3. Tang, J.L.; Morris, J.K.; Wald, N.J.; Hole, D.; Shipley, M.; Tunstall-Pedoe, H. Mortality in relation to tar yield of cigarettes: a prospective study of four cohorts. *BMJ* **1995**, *311*, 1530-1533.
- 4. National Cancer Institute. *Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine*. Department of Health and Human Services, National Institutes of Health, National Cancer Institutes: Bethesda, MD, USA, October 2001.

- 5. Tobacco Free Kids. *Special Reports: Justice Department Civil Lawsuit* (updated 17 November 2006). Available online: http://www.tobaccofreekids.org/reports/doj/ (accessed November 8, 2008).
- 6. US Department of Agriculture. *Tobacco Statistics and Reports*. Available online: http://www.fas.usda.gov/cots/tobstats.html (accessed April 22, 2007).
- 7. Clean and Green a Better Cigarette Filter is Near; Starch-based filter from Stanelco reduces cancer risk and environmental impact. *Business Wire* **2005**, *9*.
- 8. Brooks, D.R.; Austin, J.H.M.; Heelan, R.T.; Ginsberg, M.S.; Shin, V.; Olson, S.H.; Muscat, J.E.; Stellman, S.D. Influence of type of cigarette on periphereal versus central lung cancer. *Cancer Epidem. Biomarker. Prev.* **2005**, *14*, 576-81.
- 9. Gertner, J. Incendiary device. *New York Times*, June 12, 2005. Available online: http://www.nytimes.com/2005/06/12/magazine/12FILTER.html (accessed November 8, 2008).
- 10. Hon, N.S. Photodegradation of Cellulose Acetate Fibers. *J. Polym. Sci. A-Polym. Chem.* **1977**, *15*, 725-744.
- 11. Clean Virginia Waterways. Are Cigarette butts biodegradable? Available online: http://www.longwood.edu/CLEANVA/cigbuttbiodegradable.htm (accessed December 15, 2006).
- 12. US Department of Agriculture. *Tobacco Outlook Report*, Economic Research Service, October 24, 2007. Available online: http://usda.mannlib.cornell.edu/usda/ers/TBS//2000s/2007/TBS-10-24-2007.pdf (accessed November 8, 2008).
- 13. Mackay, J.; Eriksen, M.; Shafey, O. *The Tobacco Atlas*, 2<sup>nd</sup> Ed. The American Cancer Society, Atlanta, GA, USA, 2006
- 14. Carlozo, L.R. Cigarettes: 1.7 billion pounds of trash. Chicago Tribune June 18, 2008.
- 15. Ocean Conservancy. *International Coastal Cleanup: Summary Report for the United States*. The Ocean Conservancy; 2007. Available online: http://www.oceanconservancy.org/site/News2?page= NewsArticle&id=11411 (accessed November 9, 2008).
- 16. Moore, S.; Gregorio, D.; Carreon, M.; Weisberg, S.; Leecaster, M. Composition and distribution of beach debris in Orange County, California. *Mar. Pollut. Bull.* **2001**, *42*, 241-245.
- 17. Beck, R.W. Literature Review: A Review of Litter Studies, Attitude Surveys, and Other Litter-Related Literature. Final Report. Keep America Beautiful, 2007.
- 18. Stanley, K.; Stabenau, E.; Landry, A. Debris ingestion by sea turtles along the Texas coast. In *Eighth Annual Workshop on Sea Turtle Conservation and Biology*. Schroeder, B.A., Ed. NOAA Technical Memorandum: Fort Fisher, NC, USA, 1988, pp. 119-121.
- 19. Ocean Link. *Threats to Biodiversity*. Available online: http://oceanlink.island.net/ask/biodiversity.html (accessed December 18, 2006).
- 20. Micevska, T.; Warne, M.; Pablo, F.; Patra, R. Variation in, and causes of, toxicity of cigarette butts to a cladoceran and microtox. *Arch. Environ. Contam. Toxicol.* **2006**, *50*, 205-212.
- 21. CDC. Ingestion of cigarettes and cigarette butts by children-- Rhode Island, January 1994-July 1996. *Mortal. Wkly. Rep.* **1997**, *46*, 125-128.
- 22. Sanders, T.; Philip, M. *Degradable Materials*. Available online: http://legacy.library.ucsf.edu/tid/ahh48e00/.

- 23. Wahal, S. *Proposed Development Program for Dispersible Cigarette Filters*/20-488. 26 Jan 1994. Brown & Williamson. Available online: http://legacy.library.ucsf.edu/tid/ibv03f00/.
- 24. Dube, M. *Degradable Team Meeting Minutes: Five Prototypes*. Available online: http://legacy.library.ucsf.edu/tid/txc41d00 (accessed November 7, 2007).
- 25. Arzonico, B.W.; Dube, M.F.; Creamer, G.E.; Oglesby, R.L.; Ashcraft, C.R.; Wilson, R.K. United States Patent. *Degradable Smoking Article*. Available online: http://legacy.library.ucsf.edu/tid/hsd30d00/.
- 26. *Degradable Filters*. Available online: http://legacy.library.ucsf.edu/tid/iww83c00; http://legacy.library.ucsf.edu/tid/ibv03f00 (accessed November 7, 2007).
- 27. Deutsch, L.J. *Cigarette Butt Degradability Task Force. Final Report*. Available online: http://legacy.library.ucsf.edu/tid/qtg33a00 (accessed November 8, 2007).
- 28. New Product Development Meeting 970602 & 970603. 05 Mar 2001. Available online: http://legacy.library.ucsf.edu/tid/ybo25c00 (accessed November 9, 2008).
- 29. Keep America Beautiful. *Guide to Cigarette Litter Prevention*, 2005. Available online: http://www.kab.org/site/PageServer?pagename=CLPP\_landing (accessed October 10, 2006).
- 30. Lamb, W. Keep America Beautiful: Grass Roots Non-profit or Tobacco Front Group. *PR Watch* **2001**, *8*, 3.
- 31. Keep America Beautiful. *Keep America Beautiful Receives Substantial Grant to Advance Litter Prevention Efforts*. Available online: https://secure2.convio.net/kab/site/SPageServer?pagename=pressreleases\_3\_29\_07 (accessed November 9, 2008).
- 32. *Minutes from Tuesday, June 19 Presentations 'New Products'*. 19 Jun 1990. Available online: http://legacy.library.ucsf.edu/tid/qwx03e00 (accessed November 7, 2007).
- 33. Santa Clara Jan. Dialogue added to Stakeholder Engagement Section: Public Health Group #1 (West Coast). Available online: http://legacy.library.ucsf.edu/tid/gxu27a00 (accessed November 7, 2007).
- 34. Stanelco PLC Appoints Rothschild for Sale of Stanelco's Filter Technology. *Business Wire* November 11, 2005.
- 35. Pauly, J.L.; Mepani, A.B.; Lesses, J.D.; Cummings, K.M.; Streck, R.J. Cigarettes with defective filters marketed for 40 years: what Philip Morris never told smokers. *Tob. Control* **2002**, *11*, 51-61.
- 36. Oropeza, J.S.B. Available online: http://dist28.casen.govoffice.com/index.asp?Type=B\_BASIC& SEC=%7BD70E23E3-F8FD-422B-BAB7-FDEB5C68872B%7D (accessed November 2008).
- 37. Novotny, T.E.; Zhao, F. Production and consumption waste: another externality of tobacco use. *Tob. Control* **1999**, *8*, 75-80.
- 38. Oregon Department of Environmental Quality. "*The Oregon Bottle Bill Fact Sheet*". Available online: http://www.deq.state.or.us/lq/pubs/factsheets/sw/ExpandedBottleBill.pdf (accessed November 9, 2008).
- 39. National Day of Action on Cigarette Butt Litter, November 26, 2006. Available online: http://www.ministers.sa.gov.au/news.php?id=985 (accessed May 13, 2009).
- 40. An Advanced Recycling Fee (ARF) System for Electronic Product Reuse & Recycling *The Electronic Manufacturers Coalition for Responsible Recycling*. Available online:

- http://www.csgeast.org/pdfs/Electronic\_Manufacturers\_Coalition.pdf (accessed November 9, 2008).
- 41. Thompson, J.L. Environmental Pollution: Today's lawsuits against polluters are including claims for emotional distress damages. *Michigan Bar. J.* September 2002. Available online: http://www.michbar.org/journal/pdf/pdf4article484.pdf (accessed November 9, 2008).
- 42. Brandt, A.M. FDA Regulation of Tobacco Pitfalls and Possibilities. *N. Engl. J. Med.* **2008**, *359*, 445-448.
- 43. Coalition for Firesafe Cigarettes. Available online: http://www.FiresafeCigarettes.org (accessed November 9, 2008).
- 44. Available online: http://en.wikipedia.org/wiki/Beer\_can (accessed April 22, 2007).
- 45. Company History. Playtex Products, Ind. Available online: http://www.answers.com/topic/playtex-products-inc (accessed May 13, 2007).
- 46. Chapman S. Butt clean up campaigns: wolves in sheep's clothing? *Tob. Control.* **2006**, *15*, 273.
- 47. Jha, P.; Chaloupka, F. The economics of global tobacco control BMJ 2000, 321, 358-361.
- © 2009 by the authors; licensee Molecular Diversity Preservation International, Basel, Switzerland. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/3.0/).

# A Provincial Deposit – Return Program for Cigarettes

A well structured program can protect the environment and overcome the deficiencies of public ashtray programs.

Cigarette butts are the leading source of litter, both by number and weight, both in Canada and worldwide, where billions are littered daily. They are unsightly, non-biodegradable and toxic to the environment. They are increasingly getting the attention that they deserve as an environmental concern.

Awareness and enforcement campaigns are ineffective and/or impractical, therefore recently public ashtray-equivalent-based programs have been proposed. This tactic is supported by the tobacco industry and clean-up groups, who often do not see any problem in partnering with them.

A pilot program of such is currently underway in Vancouver, yet is not succeeding (estimated 3% to 6% efficacy) with multiple butts seen not only meters away from the "receptacles", but even directly below them. A properly designed deposit-return program will likely be much more effective as it relies only on personal financial self-interest, and not any plea to "do the right thing".

# Ashtray programs are bad for public health.

By nature, these programs counter a principal public health tenet - the denormalization of tobacco use. Government programs should aim to lessen the visibility and acceptability of the tobacco industry and smoking. The widespread presence of ashtrays (Vancouver's ultimate plan was for 2000 of them) imply tacit government consent, acceptance and even approval of widespread smoking in public. They strengthen the impression that smoking is common, and create smoking zones in public places. Such re-normalization of smoking is directly aligned with the strongest interests of the tobacco industry.

Many of these ashtrays are placed within nosmoking buffer zones around doorways etc.. This ridicules and encourages violations of, hard-fought for, City Health Bylaws.

These programs often involve partnering with the tobacco industry (as initially was the case in Vancouver, albeit indirectly). This is inappropriate and runs counter to government obligations under Canada's participation in the WHO Framework Convention on Tobacco Control.

# Deposit-Return Programs can support public health objectives.

Tobacco litter serves as free, albeit perverse, advertising for the tobacco industry, possibly just the sort that appeals to rebellious teenagers, the highest risk group for starting.

Tobacco litter serves as withdrawal triggers/reminders to all smokers, and especially those trying to quit.

Tobacco litter in places where smoking is prohibited (eg: building entrances, park benches) is used as an excuse by the next potential smoker to break the bylaw as well, knowing that so many others have previously ignored it.

4 Although (in this proposal) fully refundable, the increased up-front cost of purchasing a pack, as well of the inconvenience of needing to return it to a depot, will likely dissuade some smokers/potential smokers from the purchase.

## **DESIGN PRINCIPLES:**

Deposit: this must be large enough to dissuade most smokers from actually littering. We would suggest \$1 per package or \$0.05 per cigarette butt.

Fully Refundable: on return of the pack with all 20 used (or preferably unused!) filters. It is important to be able to state that this is not an additional tobacco tax in order to help foster public consent for the program.

Return: this should be done at central depots. This will decrease the visibility of smoking and of tobacco litter, thereby furthering the public health mandate of denormalizing the tobacco industry.

(In British Columbia, Encorp Pacific, http://www.return-it.ca is a federally incorporated, not-for-profit, product stewardship corporation with beverage container management as their core business, who are also charged with collecting multiple other products. They have 172 locations across the province and would seem an obvious fit. It is likely that individuals will spontaneously design business arrangements whereby they collect and return multiple packs from other smokers for a small percentage of the return; we see no reason to discourage such.)

Recycleability: it should be recognized that being able to recycle the butts is an added bonus, and not necessary to the usefulness of the program. Even if all the butts were to end up being placed en-masse in a landfill, this would be infinitely better than billions entering sensitive areas of the environment individually.

(Currently, to our knowledge, TerraCycle is the only company recycling cigarette butts, and they do so in open partnership with the tobacco industry. We recommend that the government either develop their own recycling facility, or consider partnering only with private companies willing to forgo all ties with the tobacco industry. Whether TerraCycle would have the capacity to handle the considerably increased volumes that would be generated via a deposit-return program is unknown.)

Portable ashtrays: these cost very little, and their use can be encouraged as a means to extinguish and transport the butts before placing them in the packs. In reality a few seconds care in extinguishing the butt and a plastic baggie is all that is required. Alternately the packs could easily be redesigned with a foil pocket in order to serve as their own portable ashtrays from the beginning.

Marking of packs eligible for return: cigarette packs are already marked by provincial origin and multiple options are available to enhance such including stamps, bar codes, and other electronic means. This will lead to the packs themselves as the functional holders of most of the deposit value, and therefore any littered packs will become quite valuable, as they could be filled up with any 20 littered butts for a full refund (such is not a problem as ultimately the same end will result).

Return of "orphaned" littered butts: these should also be considered for refund, however at a much lower rate, We suggest 1¢/butt. This should be done in bulk by dry weight.

A pilot project run by WestEnd Cleanup June 18, 2013 proved that this will work, and gathered widespread media attention and approval (as proof of principle for a deposit-return program and a call for such), collecting 60 000 butts in several hours by paying \$20/ pound of butts, calculated to be 1¢ each.

Including this component will virtually guarantee that almost all cigarette litter will rapidly disappear one way or the other. This also provides a small source of income for many disadvantaged individuals, although such should not be viewed as the principal goal of the program (having the butts not be littered in the first place is). The lower rate of return is necessary in order to prevent a degree of inevitable cheating from bankrupting the system, as we see no way to prevent such cheating (both attempts to mix in non-cigarette litter, and the return of non-eligible butts from other sources).

There should also be a maximum weekly return of these, such as 7lbs/wk/individual, and names/addresses should be recorded in order to discourage organized cheating. We would also suggest that the roll-out of this aspect of the program occur only following a 3-6 month delay for two reasons: Firstly, so that the percentage of marked packs being returned can be assessed; if it is very high (~95%?) then there would be less need for this component, and also both a tendency for a greater percentage of cheating, and less available funds to cover such. Secondly there should be time for an attempt to clean up butts pre-existing from before the deposit program was initiated as, of course, all such butts will not have been covered by any deposit.

Funding: with the above details the program would be ahead 4¢/ littered butt, this should be enough to both cover cheating (even if an unimaginable 50% by weight, the program would still be ahead 3¢/ littered butt), and administration costs. Therefore, after start-up, the program should be self-funding. There also will be some income from the temporary holding of funds. Should the above calculations fail, the program could be modified to claw back a small percentage of the deposit. Current efforts to clean up tobacco litter are quite expensive-estimated at over \$7 million/yr by the City of San Francisco.

Anticipated Volumes: according to <u>Propel's Tobacco Use in Canada</u><sup>1</sup> British Columbia has 515,000 smokers, who smoke an average of 12.9 cigarettes per day, suggesting a daily consumption in this province of 6.6 million cigarettes or 330,000 packages.

The following calculations obviously make multiple assumptions, but should serve as a useful guide:

- If all eligible and returned in full packs, the above would translate to \$330,000 in deposit funds collected daily, or \$120 million in a year.
- If there were 172 depots, each would be expected to handle on average 1,900 packages per day, providing \$1,900 in refunds.
- Most customers could be assumed to batch packs and return them on an infrequent (say monthly) basis, resulting in about 65 transactions per depot per day.

The tobacco industry should not be involved: other recycling programs do involve the source industry, via the notion of Extended Producer Responsibility.

However as a pariah industry which has repeatedly shown that its intentions are not in-line with the good of society, and the sole to be affixed the relationship status of "denormalization" by the government, the tobacco industry should be allowed no role in this program. Deposit funds awaiting return should be held either by the government, the collecting corporation, or one of their proxies.

The industry's views on this program are not known at this time. Given that it would lessen the visibility of their product, their opposition could be anticipated.

Pilot projects are not advisable: The feasibility of a deposit-return model has already been demonstrated by the success of B.C.'s beverage container recovery system. Additionally any smaller pilot jurisdiction would face challenges that would be less daunting province-wide, including the incentive for smokers to just buy their packs outside the region and the marking of packs eligible for deposit-return.

However if a pilot project is viewed as politically expedient, we believe that if designed properly such could be successful. It would be most feasible in isolated communities such as islands (Haida Gwaii?) or up north (or if larger is desired an entire health region could be considered, such as Island Health or Northern Health) where the closest tobacco vendor outside the region would be quite far, and hopefully local leaders would sign on and help instil a sense of pride in the community at being pioneers in this fully refundable environmental/health initiative. We advise against including any return for "orphaned" littered butts in such a pilot as there would be too great a potential for butts being brought in from elsewhere.

British Columbia's beverage container recovery system, enacted in 1970, is the oldest legislated deposit-return system in North America, and has been highly successful, and widely copied.

British Columbia can again take the environmental lead with a bold and innovative approach to fighting cigarette litter.

It must do so in a manner that is consistent with public health objectives.

Dr. Stuart H. Kreisman stuarthk@telus.net

Physicians for a Smoke-free Canada British Columbia June, 2014

<sup>&</sup>lt;sup>1</sup> Propel Centre for Population Health Impact. Tobacco Use in Canada. Patterns and Trends – 2014 edition.



**SUBSCRIBE** 

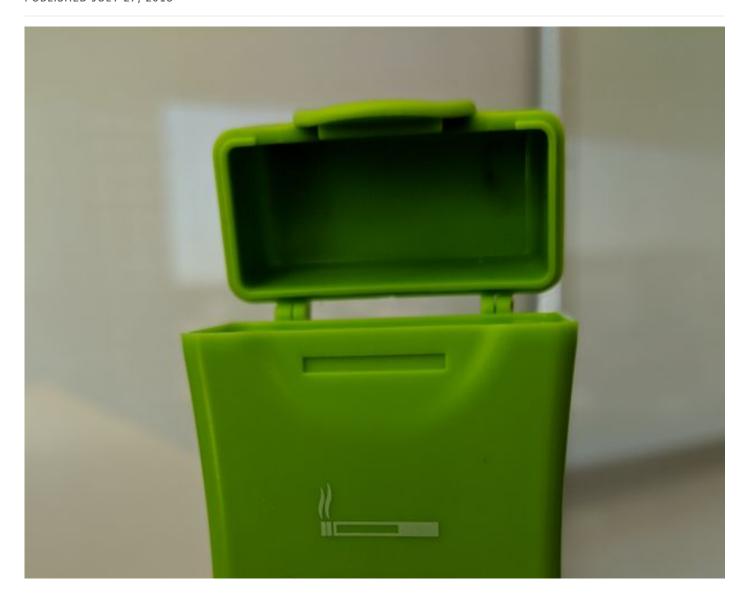


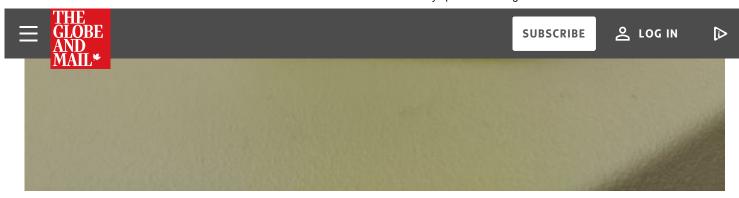


## Will Vancouver's distribution of wearable ashtrays prevent littering?

#### **ADRIENNE TANNER**

SPECIAL TO THE GLOBE AND MAIL PUBLISHED JULY 27, 2018





The City of Vancouver is handing out pocket cigarette-butt holders in a bid to cut down on the number of butts tossed onto the street.

HANDOUT

As a former smoker, to me the only thing worse than the stale smoke smell that lingered in my hair and clothes was the stench of spent cigarette butts. I remember it most vividly from my days slinging beer in a bar when smoking was still permitted.

Picking up the ashtrays wasn't so bad: I took a clean one, placed it over the dirty one on the table and lifted them both onto my tray. This prevented stinky ashes from flying all over the customers and spared me from having to touch the rim of the dirty one. The bad part came later when I had to empty the overflowing ashtrays. Even though I smoked, the vile smell of those butts just about made me gag every time.

So when I heard that the city was handing wearable, bright green plastic ashtrays to smokers, I had to wonder who would want to cart around their used butts in their pocket? City staffers say the ashtray distribution program is just part of a larger anti-littering campaign. One round of ashtrays was given out last year, and this month another batch was ordered and distributed. Smokers are encouraged to empty them into cigarette butt recycling receptacles that hang on poles along busy streets, including Robson, Granville, Georgia, Water and assorted other downtown locations. "The smokers that did take them were happy to receive them," says Brian Wong, Vancouver's clean streets co-ordinator. "Some said, 'it's a great idea.'"



**SUBSCRIBE** 

≗ LOG IN



But will any of these plastic ashtrays be used more than once? I'm skeptical. Mr. Wong acknowledges there is no way to know whether the ashtrays will turn out to be as habit-forming as cigarettes. But that's almost besides the point, he adds. The ashtrays double as a reminder that cigarette butts are litter.

Of that, there is no doubt. Counted by piece, cigarette butts top the city's litter list and are the second most common item found during shoreline cleanups. Many people don't realize they can be recycled. Once or twice a week city crews empty the receptacles and the butts are shipped to TerraCycle's recycling plant in Ontario. The tobacco and paper are composted, the filters melted down and used to make plastic benches and picnic tables. Vancouver was the first city to sign on to the program and a number of Toronto business improvement associations followed.

Despite the diminishing ranks of smokers, there is still no shortage of butts. "This year we passed a milestone of collecting 100 million cigarette butts," says Jessica Panetta, TerraCycle's marketing and communications manager.

But given the number that still end up as litter, it is obvious many more still could be collected for recycling. The question becomes how best to achieve that goal. In 2013, organizers of a West End cleanup, received a \$500 small grant from the Vancouver Foundation to buy back cigarette butts. The money was gone in less than three hours and more than 60,000 butts were collected.

North Vancouver Mayor Darrell Mussatto has for years tried to persuade the provincial government to legislate a large-scale buyback program by placing a dollar deposit on every package of cigarettes sold in B.C. The money would be returned when the butts are turned in.

"I tried with the provincial Liberals and got nowhere," he said. "I thought I'd have better



**SUBSCRIBE** 





succeed. Instead of producing plastic ashtrays that will probably end up in the trash, the city should join Mr. Mussatto and lobby for a deposit on cigarettes.

Not only would the butts get picked up, the extra charge may persuade a few more smokers to quit.

FOLLOW US ON TWITTER

@GLOBEBC

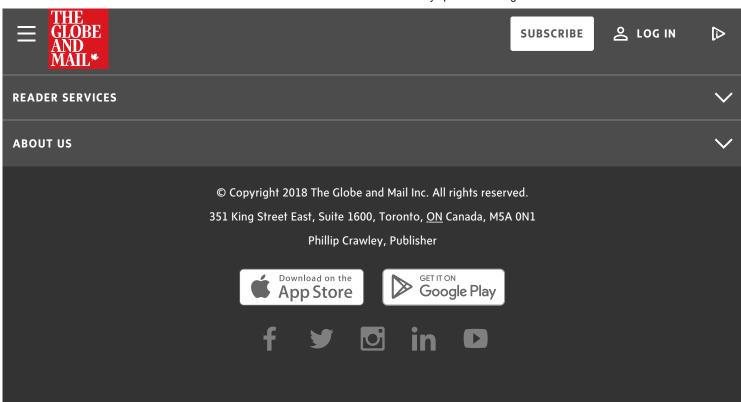
1 REPORT AN ERROR

E EDITORIAL CODE OF CONDUCT



#### **TRENDING**

- 1 Doug Ford can't apply the notwithstanding clause retroactively to impede democracy
- 2 Ontario Court of Appeal panel to rule Wednesday on whether it will grant stay and allow 25ward Toronto election
- **2** Doug Ford goes to Washington: Good luck with Trump and the America-Firsters
- 4 These 3 stocks would appeal to the all-time great investors







THE IMPACT IS HUGE



#### B129 CIGARETTE BUTT DEPOSIT RETURN PROGRAM

WHEREAS cigarette butts are a significant source of litter in many local communities;

AND WHEREAS cigarette butts are non-biodegradable and leach toxic organic chemicals and heavy metals into the environment impacting soil, fresh and saltwater, and have a significant negative impact on the aquatic and land-based organisms that ingest them;

AND WHEREAS a cigarette butt deposit-return program offers a promising solution to significantly reduce cigarette butt litter and improve environmental health:

THEREFORE BE IT RESOLVED that the BC Ministry of Environment implement a province-wide cigarette butt deposit-return program for the elimination of cigarette litter.

#### **RESPONSE: Ministry of Environment and Climate Action Strategy**

The Province's long term policy regarding waste management and recycling is to shift the onus of responsibility for managing products at their end of life from local governments and the general taxpayer to industry and consumers, through the approach known as Extended Producer Responsibility (EPR). In BC, we now have province-wide recycling programs for packaging and printed paper (PPP), beverage containers, electronics, tires, pharmaceuticals, paint, oil, pesticides and other household hazardous wastes.

The Ministry of Environment prioritizes new product categories to be added to the Recycling Regulation by aligning with the schedules in the Canadian Council of Ministers of the Environment Canada-Wide Action Plan for Extended Producer Responsibility (CCME CAP-EPR). For example, the Regulation was amended in May 2011 to include Packaging and Printed paper (PPP) as a product category. This means that producers of PPP, including producers of cigarette packaging, had to be part of a product stewardship plan by May 2014.

Construction and demolition waste, textiles and mattresses have been identified by the CCME as future priorities for regulation. Many of these waste types are significant in volume, problematic to recycle and costly to manage. Local governments across BC have also echoed their support for regulation of several of these product categories.

The Ministry is currently focusing on full implementation and continuous improvement of its existing programs before further pursuing new EPR programs. As a result of the Ministry's current focus on continuous improvement of its EPR programs and the fact that tobacco product waste, specifically cigarette butts, is currently not part of the CCME CAP-EPR, the addition of tobacco product waste to the Regulation is not being considered at this time.

As the Ministry recognizes the issues caused by cigarette butts, it is suggested that adoption of pole-mounted collection container programs that are proving successful in other BC jurisdictions be as a means to collect these problematic items. An alternative or additional measure may be to approach industry to assist in piloting and/or funding these programs.