

Maple Ridge Soil Deposit Bylaw

February 2, 2017 Public Open House

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Why Are We Here?

1. **Council directed Staff** to undertake a Soil Deposit Bylaw review process with consultation opportunities (July 11, 2016).
2. **Planning Department Business Plan** for 2016 includes the review of the Soil Deposit Bylaw.
3. **Community Feedback** from previous studies and questionnaires including the Environmental Management Strategy (EMS), 2014 Citizen Satisfaction Survey, and Official Community Plan (OCP).
4. **OCP Policies** that encourage protection and management of soil resources and the protection of agricultural lands.
5. **Public Concerns** about impacts from permitted and unpermitted soil deposit activity, including costs transferred onto taxpayers and neighbouring properties.
6. **Lessons from Other Municipalities** on Soil Deposit Projects, impacts and enforcement.
7. **MetroVancouver Illegal Fill Team** was established to assist municipalities in managing unpermitted soil deposition across the Lower Mainland and in protecting agricultural lands.

Consultation Program

Review of the Maple Ridge Soil Deposit Bylaw



Consultation Process

- Public Review Process endorsed July 11, 2016
- Public Open House held on September 29, 2016
- Questionnaire /On-Line Questionnaire was available for completion and submission from September 26 to October 31, 2016
- Update to Council on public review process on December 5, 2016

A Growing Challenge



Developers and Contractors have noted a growing challenge in identifying appropriate locations for re-using or disposing of soils. An increase in soil deposit activity (permitted and unpermitted) in recent years has resulted from an increase in development and building projects occurring all across the Lower Mainland. The projects are occurring on greenfield areas as municipalities expand as well as on brownfield areas as urban areas are revitalized and repurposed. Receiving sites for this soil material are primarily the agricultural areas of Lower Mainland municipalities, including Maple Ridge.

As a result of the volume of development activity, an industry has formed around the removal and deposit of soil. Contractors and land owners at the soil deposit locations are able to charge for the deposit of soils. Although many soil deposit projects are improving soil characteristics, drainage, agricultural productivity, and property use, other sites that would not normally require soil for maintenance or management are now receiving soil. This activity is commonly referred to as “fill-farming”.



Ongoing Soil Deposit Concerns

- The Maple Ridge Soil Deposit Bylaw guides the placement (deposit) of soil on properties within the municipality in order to prevent impacts to natural features, properties, municipal infrastructure as well as the safety of residents.
- To date, residents, businesses and community groups have provided feedback related to permitted and unpermitted Soil Deposit Activity.
- The challenges that have been identified by the community are listed below. These challenges are discussed in the following information boards.

Challenges Identified

- Public Notification
- Drainage Issues and Flooding
- Contamination
- Invasive Species
- Agricultural Productivity
- Aesthetics and Public Nuisance
- Road Impacts and Road Safety
- Permit Non-Compliance
- Unpermitted Activity



Draft Bylaw

Summary of Improvements

Based on the feedback received during the Soil Deposit Bylaw Review Process (including the Public Open House held on September 29, 2016 and from the Questionnaire responses) as well as from feedback received previously, a new Draft Soil Deposit Bylaw has been prepared.

The Draft Soil Deposit Bylaw attempts to address the issues that were previously identified and discussed. The Bylaw improvements include:

1. Improved Protection

- for local residents and neighbourhoods
- for agricultural lands
- more assessments and plans
- more monitoring

2. Costs/Application requirements are related to project size

3. Improved Enforcement

- better baseline data
- enforcement fee for unpermitted deposits
- appropriate securities

4. Simplified Application Form

ISSUE #1: Public Notification

Residents have stated that public notification should be required for soil deposit projects so that residents have the opportunity to comment on the projects prior to a decision on approval.

CURRENT BYLAW

- Does not require public notification
- Applications for ALR lands (Non-farm use) are reviewed by Council at Committee of the Whole and approved or denied at a Council Meeting

DRAFT BYLAW

- **Information Letters :**
 - required for deposits $> 350\text{m}^3$ (approx. 50 trucks)
 - to be sent to properties within 100m of the project site
- **Information Signs :**
 - required for deposits $> 5,000\text{m}^3$ (approx. 715 trucks)
 - similar in format to Development Application signs.
- **Information Meetings:**
 - required for deposits $> 20,000\text{m}^3$ (approx. 2,900 trucks)
 - similar format to Development Information Meetings.
- Applications for ALR lands (Non-farm use) are reviewed by Council at Committee of the Whole and approved or denied at a Council Meeting

Issue #2: Drainage



Residents have expressed concern over the potential impacts of soil deposition on the hydrology of project sites and surrounding areas. Soil deposition can:

- elevate landscapes that changes drainage patterns;
- alter soil regimes that change the capacity of the soils to retain, hold, or drain surface and ground water; and,
- negatively impact septic fields, groundwater aquifers, wells, nearby watercourses and wetlands, and floodplain drainage capacity and patterns.



CURRENT BYLAW

- Requires Stormwater Impact Assessments for floodplains
- States that adjacent properties are not to be impacted
- Does not require plans or monitoring

DRAFT BYLAW

- All sites require protection for drainages and infrastructure
- **Erosion and Sediment Control and Stormwater Management Plans** for all sites
- Deposit > 350m³ requires **BCLS land surveys and professional plans**
- Deposit > 1m depth Qualified Engineer to approve project
- **Floodplain Impact Assessments** for projects in a floodplain
- **Groundwater Assessments** for projects within 100m of a vulnerable aquifer



Issue #3: Contamination

Redevelopment in areas with contaminated soils results in the spread of contaminated material (knowingly or unknowingly) to properties across the Lower Mainland. These soils may end up in and around residential homes or on agricultural lands. Contaminated soils could impact the health of residents and animals directly from interactions with the contaminated soil, as well as from nearby wells and watercourses.

The costs for residents to remove contaminated material once it has been deposited are substantial. As an example, the disposal of three truck loads of contaminated material from an illegal dump cost the City \$5,795.00 (not including costs for professional analysis and reporting).

CURRENT BYLAW

- Construction debris is not permitted for deposit on any property
- Neighbouring properties are not to be impacted
- Soil deposits for building construction and subdivisions may be exempt
- City may provide exemption for deposit of up to 50m³
- Security Deposit of \$1,000/ha
- **BCLS land survey** is only required for sites depositing soil greater than 1m in depth, on a steep slope or in a floodplain.

DRAFT BYLAW

- Construction debris not permitted for deposit on any property
- Soil deposits for building construction or subdivisions are not exempt
- City may provide exemption for deposit of up to 15m³ (2.5 trucks)
- **Soil Deposit Security** is \$2/m³ (approximately \$12 - 14 per truck load)
- **Log books** required for all permits
- **BCLS land survey** for deposits > 350m³ (50 trucks) and for depths > 1m
- Unpermitted soil deposits:
 - Removal or testing for contaminants required
 - An **Enforcement Permit Fee** of \$250 is required in addition to a Soil Deposit Permit fee for soils remaining on site

Issue #4: Invasive Species



Invasive species (Japanese knotweed, Himalayan blackberry, morning glory, and Scotch broom) have been spread to various properties through permitted and unpermitted soil deposition. These species spread quickly and are difficult and costly to remove once established. The presence and spread of these species can impact sensitive natural areas, agricultural potential and, in the case of Knotweed, have the potential to impact municipal and private infrastructure and buildings. The provincial government recognizes Knotweed as a noxious weed requiring residents to manage the species on their properties.

CURRENT BYLAW

- Does not speak to invasive species management

DRAFT BYLAW

- **Invasive Species Assessment** of project site
- **Invasive Species Monitoring** of project site during operation
- **Invasive Species Management Plans** required once invasive species have been identified on the project site
- **Log books** required (identify source sites with invasive species)
- Unpermitted soil deposits:
 - removal required or
 - an **Enforcement Permit Fee** of \$250 is required (in addition to a Soil Deposit Permit fee)



Issue #5: Agricultural Lands

Farm use and productivity are dependent on many landscape factors including: grades, angle of exposure, groundwater, surface water, and soil stratification. Soil Deposit Permit applications are often to amend one or more of these conditions. Although soil deposition can improve site conditions, it can also be detrimental to the growing potential of agricultural lands:

- site grading and compaction can disrupt site drainage;
- topsoil can be lost as it is mixed with structural soil or buried;
- contaminants in the soils can be deposited on site unknowingly; and,
- noxious or invasive plant species can be imported to the deposit sites.

Residents have expressed concern over the potential for “fill-farming” on agricultural lands. They are concerned that filling is occurring for revenue at the expense of the agricultural potential of the lands.

CURRENT BYLAW

- Does not speak to requirements for agricultural land other than the need to include the Agricultural Land Commission in the process for ALR properties
- Identifies exemptions for the deposit of wood waste for farm uses

DRAFT BYLAW

- **Farm Use Plans** are required
- **Soil Quality Assessments** are required for projects that are improving farm potential
- **BCLS land surveys** are required for deposits > 350m³ and/or depths are >1m
- **Log books** are required for all sites
- **Invasive Species Assessments**, monitoring, and management plans
- **Stormwater Management Plans and Floodplain Impact Assessments**
- Unpermitted soil deposits :
 - Require removal or
 - Require an **Enforcement Permit Fee** of \$250 (in addition to a Soil Deposit Permit fee) and require **testing for contamination** by a Qualified Professional



Issue #6: Neighbourhood Impacts

Residents have expressed concern over the impacts to general aesthetics to a neighbourhood area as well as to adjacent properties as a result of Soil Deposit Projects. Projects have resulted in significant change to grades and elevations within close proximity to property lines. Residents have been concerned over these significant differences and the resulting impacts to the visual appeal of their properties.

Residents on occasion have also commented on their frustration with permits that continue well beyond the initial one year permit period (permit renewals or amendments). Residents have expressed fatigue with the noise, dust, trucks, ground vibrations, road impacts and other challenges that they have experienced with ongoing permits.



CURRENT BYLAW

- Does not speak to aesthetics or buffers
- States that permit duration is for one year and permit renewals are possible without fees

DRAFT BYLAW

- **Permit Renewal Fees** for projects lasting longer than 1 year
- **BCLS land survey** required for deposit of $> 350\text{m}^3$
- **Farm Use Plans** required for projects on agricultural land and for deposits that are to improve farm land
- **Traffic Management Plans** required for all projects
- **Soil Quality Assessments** required for all projects
- **Erosion and Sediment Control Plans** are required



Issue #7: Road Impacts and Safety

Residents have expressed concern over road impacts and road safety as a result of high truck traffic volumes associated with soil deposit sites. Most sites that are proposed for soil deposition are large acreages that are situated in rural areas and are often zoned as Agricultural.

Residents have noted damage to their roads including both road shoulders and road surfaces. Residents have also reported the tracking of mud and other debris onto the road surfaces. In addition to impacts to roads conditions, residents have also noted at times that traffic at high activity sites poses a potential danger to both vehicle traffic and pedestrians (walkers, bikers and on horse back).



CURRENT BYLAW

- Requires applicants to provide traffic routes for trucks.
- Does not require detailed traffic management plans.
- Requires erosion and drainage control as well as road cleaning.
- Volume fee is \$0.15/0.30 per m³ of soil deposited on site.
(Volume fees are for road repairs and improvements)

DRAFT BYLAW

- **Traffic Management Plan** required for all sites (routes and safety)
- **Erosion and Sediment Control Plan** required for all sites
- **Log books** are required - will assist in monitoring trucking companies
- **Volume Fee** is \$0.50 per m³ of soil deposited on site
- **Road Quality Assessments** may be required for projects depositing more than 350m³ of material.

Issue #8: Permit Non-Compliance

Soil Deposit Permit applications are submitted to improve farm productivity and drainage, property access, for landscaping and for building and development related projects. While many permits are completed without issue, there are occasions where concerns arise and in some instances enforcement is required.

Effective enforcement is often a challenge due to the following reasons:

1. lack of baseline data;
2. limited securities; and,
3. limited disincentives to dissuade bylaw infractions.

CURRENT BYLAW

- Requires engineering plans and surveys only for projects on floodplains, on slopes or where fill deposited is greater than 1m in depth
- Stormwater assessments and plans only required for floodplain sites
- Does not require Erosion and Sediment Control Plans or monitoring for all sites
- Requires a refundable security in the amount of \$1,000/ha

DRAFT BYLAW

- **Assessments and plans** (drainage, invasive species, trees, soil, erosion and sediment control) are required for all sites
- **Groundwater Assessments and Plans** required within 100m of vulnerable aquifer
- **Agricultural Farm Use Plans** required for agricultural improvements
- **BCLS land surveys and professional assessments/plans** are required for projects depositing:
 1. more than 350m³
 2. on floodplains
 3. on slopes
- **Refundable security is \$2/m³** (up to 20,000m³) and then \$1/m³
- **Log books** required for all sites



Issue #9: Unpermitted Deposits

When City receives calls from concerned residents, staff attend the sites in question and inspect the properties for Bylaw compliance. The reasons for the unpermitted soil deposit range from landscaping to farm use to the disposal of waste materials. Some of the observed activity would be permitted under the Bylaw through a Soil Deposit Permit. In some instances the property owners were unaware of the Bylaw requirements while in other instances the property owners and contractors believed they were exempt (due to farm use or volume). In other instances the material deposited was not necessary for landscaping, drainage, access improvements or farm use.

CURRENT BYLAW

- The City may provide exemptions for soil deposit:
 1. under 50m³ (per year)
 2. for some farm uses, and
 3. for building construction and subdivisions.
- Permit application fee is \$204, no matter the scope of a project
- Source of soils and dispatch companies are not finable entities
- Log books not required



DRAFT BYLAW

- The City may provide exemption for soil deposit up to 15m³ (per year)
- **Building and subdivision construction require Soil Deposit Permits**
- Permit fee for small projects (under 350m³) is \$50
- Dispatch companies and owners of source sites are finable entities
- Unpermitted soil deposits:
 - Require a **log book** of the sources and trucking companies responsible
 - Require removal, or
 - Require an **Enforcement Permit Fee** of \$250 (in addition to a Soil Deposit Permit fee) and **testing for contamination** by a Qualified Professional

Draft Bylaw – Permit Requirements

A. Permits for 16m³ to 350m³ (3 to 50 trucks)

- Permit Fee: \$50.00
- Public Notification: No notification required
- Assessments and Plans: may be completed by applicant:
- Refundable security: (minimum of \$500.00) up to \$700.00
- Volume fees: ranging from \$7.50 to \$175

B. Permits for 351m³ to 5,000m³ (50 to 715 trucks)

- Permit Fee: \$350.00
- Public Notification: Letters (for properties within 100m)
- Assessments to be completed by Qualified Professionals
- BCLS land survey required
- Refundable security from \$700.00 to \$10,000
- Volume fees ranging from \$175 to \$2,500

C. Permits for 5,001m³ to 20,000m³ (715 to 2,900 trucks)

- Permit Fee: \$750.00
- Public Notification: Letters and a Sign (similar to Development application)
- Assessments to be completed by Qualified Professionals
- BCLS land survey required
- Refundable security from \$10,000 to \$40,000
- Volume fees ranging from \$2,500 to \$10,000

D. Permits for greater than 20,000m³ (>2,900 trucks)

- Permit Fee: \$750.00
- Public Notification: Letters, a Sign and an Information Meeting
- Assessments to be completed by Qualified Professionals
- BCLS land survey required
- Refundable security > \$40,000 (\$2/m³ up to 20,000m³, then \$1/m³)
- Volume fees > \$10,000 (\$0.50/m³)

Draft Bylaw – Permit Requirements

E. Permit Renewals:

- Required after 1 year subject to permit review, justification and compliance
- Permit renewal fees: \$50, \$175 and \$375, respectively
- Updates required for all assessments and plans

F. Assessment and Plan Requirements:

- Soil Assessment and Management Plan (all sites)
- Tree Impact Assessment and Management Plan (all sites)
- Invasive Species Assessment and Management Plan (if present) (all sites)
- Stormwater (Drainage) Assessment and Management Plan (all sites)
- Erosion and Sediment Control Plan (all sites)
- Traffic Management Plans (all sites)
- Road Quality Assessments may be required (all sites)
- Agricultural Farm Use Plans for farm improvement-based soil deposits
- Floodplain Impact Assessment for sites in a floodplain
- Groundwater Impact Assessment and Management Plan for sites within 100m of a vulnerable aquifer
- Geotechnical Impact Assessments for sites on or near a steep slope or where the proposed depth of fill is more than 1m

G. Site Monitoring:

- Stormwater/Groundwater Management impacts during and post project
- Soil Quality Assessment and Agrologist Report for agricultural lands
- Invasive Species
- Tree Impacts
- Erosion and Sediment Control
- Log books to ensure source materials are suitable
- Geotechnical
- BCLS land surveys
- Floodplain Impact Assessments and report for sites in floodplains

Learning From Other Municipalities

Municipality	Population	Size Sq Km	Bylaw Year	Permit Fees				Enforcement		Exemption limits			Assessments/plans/reports													
				Application	Renewal	Transfer	Volume (\$/m3)	Permit Application Fee	Refundable Security	Volume (m3/yr)	depth (m)	Activities	BCLS survey	Floodplain	Groundwater	Stormwater	Agrologist	Invasive Species	Road Impact	Erosion & Sediment Control	Traffic Management	Aesthetics/Buffer	Log books	Public Notification		
Abbotsford	140,000	360	2003	\$0			0.67		\$10,000 + \$5,000/ha			Wood Waste	✓		✓	✓							--	✓		
Burnaby	230,000	98	1971	\$250									✓													
Chilliwack	78,000	261	2010	\$250			0.50		\$5,000			Farm, Nursery, Horticulture	--		--	✓		--			--	✓	✓			
Coquitlam	130,000	152		\$50-\$500	\$50-\$250					500	<1	Building, Subdivision	✓			✓				--	--		--	--		
Delta	100,000	364	2011	*\$100; \$500			0.50		\$0.5/m3	15 - 100	<0.5	Building, Subdivision, Wood Waste, Septic			--	--	--						--			
Maple Ridge Current	77,000	267	1999	\$200			0.15; 0.30		\$1000/ha	50		Building, Wood Waste	--			--				--	--					
Maple Ridge Draft	77,000	267		\$50,\$350, \$750	\$50, \$175, \$350		\$0.50		\$2/m ³ (to 20,000 m ³); \$1/m ³	15		Wood waste	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	
Mission	38,000	226	2015	\$180	\$100		0.52		\$5000+ \$2500/ha	200		Building	--			--								✓		
Port Coquitlam	57,000	29	1997	\$150	\$100	\$100	0.20; 0.10		\$5000 + \$5000/ha	200		Farm, Horticulture				✓							✓		✓	
New Westminster	71,000	16	2013	\$365			0.30		\$5000+\$3600 (per 5000m ³)	**5; 10	<0.15	Subdivision, Nursery, Horticulture, Septic	✓		--	✓			✓	✓		✓	✓	✓	✓	
Richmond	200,000	130	2007	\$600	\$100				\$20.00/m3	100	<1	Farm, Building, Subdivision Horticulture, Septic				✓	✓				--	--				
Surrey	480,000	316	2007	\$650		\$245			\$5.00/m3	15; 100	<0.5	Building, Subdivision		--		--							--	✓		
Township of Langley	110,000	316	2013	\$250	\$50		0.50	\$500	\$5/m3			Building, Subdivision	✓		--	✓		✓	✓		--	✓	--	✓		

✓ = the municipal bylaw does require the assess/plan/report or notification
 -- = the municipal bylaw requires some information but not specifically an assessment/plan/report or formal notification
 * = Permit cost for agricultural land(\$100) versus non-agricultural land (\$500)
 ** = Volume exemption limit is for a 2 year period.

Draft Bylaw – Implications

1. Greater costs for applicants

- For more assessments, monitoring, plans, BCLS Surveys, follow up studies, and reports, and notifications (signs, meetings, ads, etc.)
- For volume fees
- For refundable securities

2. More time required

- To complete assessments, surveys, plans, reports, site inspections of source sites, and to prepare and submit log books.
- For Staff to review permit applications, monitoring reports, log books, follow up assessments.

3. Staff Resources

- For improved Enforcement
- For additional application reviews
- For additional assessment and report reviews
- For site monitoring

4. Improved Protection

- for local residents and neighbourhoods
- for Agricultural lands
- more assessments and plans
- more monitoring

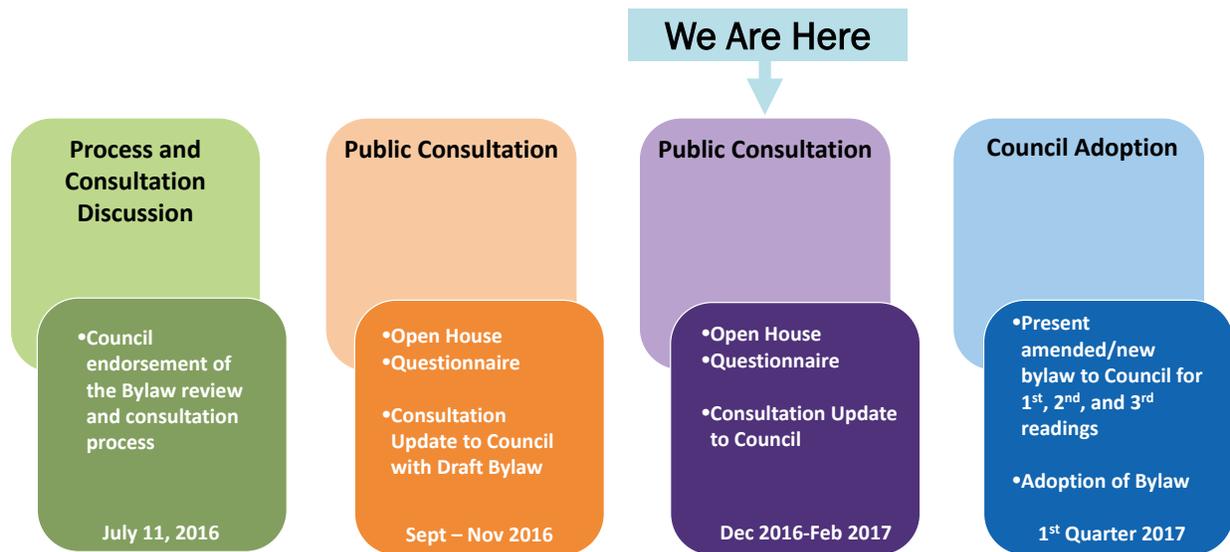
5. Costs/application requirements are related to project size

6. Improved Enforcement

- better baseline data
- enforcement fee for unpermitted deposits
- appropriate securities

7. Simplified Application form

Next Steps



1. **Receive and compile feedback** from residents, business owners and stakeholders from the Open House and Questionnaire.
2. **Report back to Council** on consultation feedback in March 2017.
3. **Submit the Soil Deposit Bylaw to Council** for their consideration and adoption.

Thank you for attending!