

# Maple Ridge Soil Deposit Bylaw

September 29, 2016 Public Open House

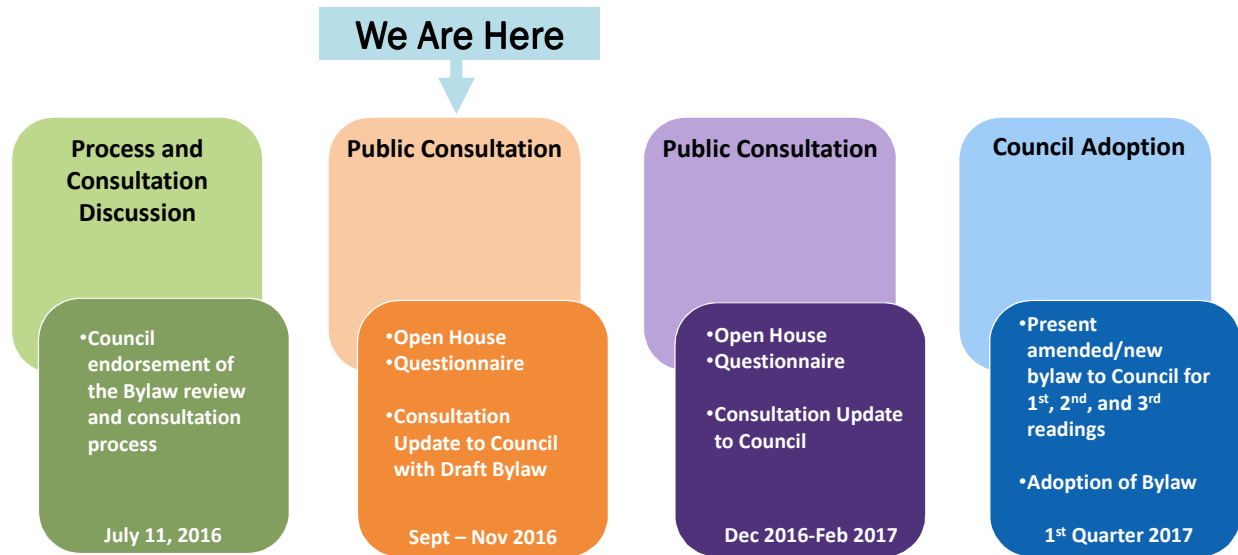
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# Why Are We Here?

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

For the review of the Maple Ridge Soil Deposit Bylaw



## Consultation Tools

- **Public Open House** for residents and stakeholders to provide their comments, interests and opinions on the benefits and challenges of the current Bylaw and on recommendations for improvements.
- **Questionnaire /On-Line Questionnaire** for residents and stakeholders to provide feedback (available for 4 weeks)
- **Information Bulletin** -provides information on the public review process for the Soil Deposit Bylaw Review
- **Municipal Website** update with Bylaw background information, information bulletin and other materials.
- **Social Media** notices and updates
- **Media Releases** (4 different advertisements)

# A Growing Challenge



Developers, Contractors and Municipal Staff 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**”.



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# 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.
- Staff are looking to continue that dialogue to identify what is working, the challenges, and potential opportunities for improvement to the Bylaw.
- 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



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# Resident Feedback to date

## **ISSUE #1: Public Notification**

Residents have informed staff on various occasions 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. Residents have suggested that notification could be made by requiring the posting of a sign on the property or the distribution of a notification letter to nearby property owners during the permit application review period. Further consultation will explore opportunities for public notification.

## **CURRENT BYLAW**

- Does not outline requirements for notifications to adjacent property owners or neighbourhoods

## **MUNICIPAL COMPARISON**

- A few municipalities require public notification
- One municipality has a Good Neighbour Policy that requires communication with affected residents and businesses.



# Resident Feedback to date



## ISSUE #2: Site Impacts - Drainage

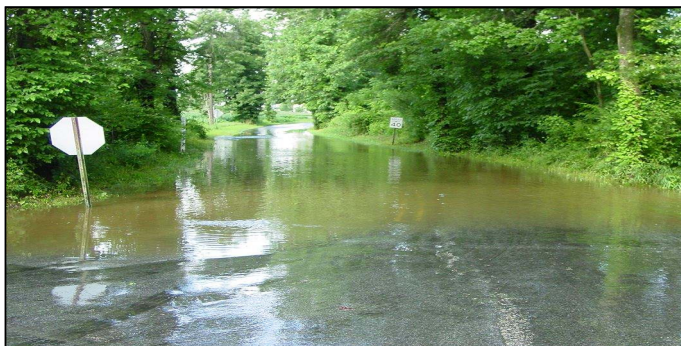
Residents and staff have expressed concern over the potential impacts of soil deposition on the hydrology of adjacent properties, natural features (watercourses), as well as larger neighbourhood areas. Soil deposition results in altered soil regimes that change the capacity of the soils to retain, hold, or drain surface and ground water. Soil deposit activities also elevate landscapes changing surface water flow patterns. Soil deposition has the potential to negatively impact septic fields, groundwater aquifers and wells, nearby watercourses and wetlands, drainage patterns, and floodplain drainage capacity and patterns.

## CURRENT BYLAW

- Requires Stormwater Impact Assessments for floodplain areas
- States that adjacent properties are not to be impacted due to fill related activities but does not require plans or monitoring

## MUNICIPAL COMPARISON

- Require Groundwater Surveys
- Require Stormwater Management Plans
- Have floodplain policies related to development



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# Resident Feedback to date

## **ISSUE #3 Site Impacts - 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 that receive runoff from the contaminated materials.

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**

- States that construction debris is not to be deposited on any property
- Requires that neighbouring properties are not impacted

## **MUNICIPAL COMPARISON**

- No direction specific to contamination
- Several municipalities require log books

(Log books are records of information including soil sources (addresses), dates, trucking companies and contact information)



# Resident Feedback to date



## ISSUE #4 Site Impacts– Invasive Species

Invasive species such as Japanese knotweed, Himalayan blackberry, morning glory, and Scotch broom have been spread to various properties through permitted and unpermitted soil deposit activities. 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 as they displace diverse native vegetation communities, agricultural potential of farm properties as they displace crops and grazing areas, and in the case of Knotweed, have the potential to impact municipal and private infrastructure and building structures. Knotweed has been recognized by the provincial government as a noxious weed requiring residents to manage the species on their properties to prevent its spread.

Avoidance of contamination for any invasive species in the first place is considered the best management practice and requires additional diligence and effort to ensure that source materials, tools, vehicles and machinery are free from contamination.



## CURRENT BYLAW

- Does not speak to invasive species management

## MUNICIPAL COMPARISON

- No direction specific to invasive species



# Resident Feedback to date

## ISSUE #5 Site Impacts– Agricultural Lands

Farm use and productivity is dependent on many landscape factors including: grades, angle of exposure, groundwater and 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 as well.

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. Residents have commented that Permit applications proposed for farm improvements should only be approved for properties that have a history of farming and for property owners who have owned and farmed the land for a period of time.

## 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

## MUNICIPAL COMPARISON

- One municipality requires an Agrologist Report
- No other municipal bylaw speaks to the need for Soil Quality Assessments.



Photo Credits to Villanueva. Photo accessed from <http://blogs.cornell.edu/2012/04/22/soil-quality-assessment/>



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# Resident Feedback to date

## ISSUE #6 Site Impacts – Aesthetics and Public Nuisance

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

### MUNICIPAL COMPARISON

- Several municipalities require permit renewal fees
- Several municipalities require buffers along property lines
- Several municipalities require max grade or elevation changes in proximity to property lines.





# Resident Feedback to date

## ISSUE #7 Road Impacts and Road 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 and road conditions, residents have also noted at times that traffic is not managed at high use sites and this traffic 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 for high activity sites.
- Requires erosion and drainage control as well as road cleaning.
- Soil Deposit Fee Bylaw (5764-1999) requires volume fees for soil material deposited on site. Volume fees are for road repairs and improvements.

## MUNICIPAL COMPARISON

- One municipality requires Road Impact Assessment
- Volume fees range from \$0.20 to \$0.67 per cubic metre
- Traffic routes are requested, but not management plans
- Two municipalities require Erosion and Sediment Control Plans



# Resident Feedback to date

## ISSUE #8 Soil Deposit 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.

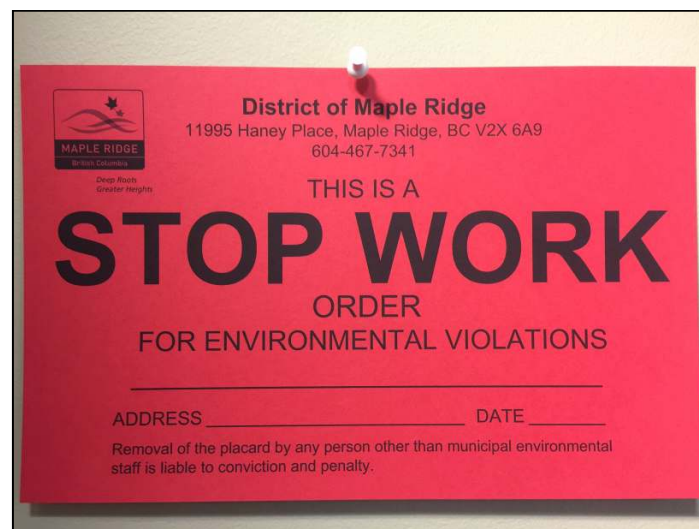
Permitted sites over the past five years have ranged in size up to 100,000m<sup>3</sup> (14,500 trucks). The refundable securities taken by the City have ranged from \$500 to \$3,500. The limited securities provide little incentive for compliance and would not cover the cost of work or professional oversight if remediation works were necessary.

## CURRENT BYLAW

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

## MUNICIPAL COMPARISON

- Refundable securities range upwards from a minimum of \$5,000
- Some securities are area based (per ha)
- Some securities are volume based (per m<sup>3</sup>)



# Resident Feedback to date

## ISSUE #9 Unpermitted Soil Deposit Activity

When Staff receive concerned calls from residents they attend the sites in question and inspect the properties for Bylaw compliance. The reasons for the unpermitted soil deposit ranges 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 critical for landscaping, drainage and access improvements or farm use.



Enforcement Staff provide the responsible parties for unpermitted activity the opportunity to either remove all soil material or to apply for a permit. All waste material is required to be removed. All soil that is to remain on site requires log books, proof of source, and in some instances require laboratory tests to prove the soil is free of contaminants. The permit application fee in the case of non-compliance is the same as for a regular permit.

## CURRENT BYLAW

- Provides option for permit exemptions for soil deposits under 50 m<sup>3</sup> (per year)
- Provides option for permit exemptions for farm use as identified in the *Soil Conservation Act* that was replaced by the *Agricultural Land Commission Act* in 2002.

## MUNICIPAL COMPARISON

- One municipality requires additional permit fees for unpermitted sites.
- Some municipalities have soil watch programs



# 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	77,000	267	1999	\$200			0.15; 0.30		\$1000/ha	50		Building, 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 5000m3)	**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.

# Bylaw Amendment Options

Options based on Feedback we have received to date...

## 1. Require Public Notification

- Signs
- Information meetings
- Notification letters to adjacent properties
- Similar to development/subdivision applications

## 2. Require more assessments

- Groundwater Impact Assessment
- Stormwater (drainage) Impact Assessment
- Soil Quality Assessment
- Tree Impact Assessment
- BCLS surveys pre/post fill
- Invasive Species Assessment
- Road Quality Assessment
- Professional assessments of soil source locations

## 3. Require more detailed plans

- Stormwater/Groundwater Management Plans
- Farm Use plans
- Invasive Species Management Plans
- Soil Deposit/Grading Plans
- Erosion and Sediment Control Plans
- Traffic Management Plans
- Tree Management Plans



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# Bylaw Amendment Options

Options based on Feedback we have received to date... cont'd

## 4. Require more site monitoring

- Stormwater/Groundwater Management impacts during and post project
- Soil Quality Assessment and Agrologist Report
- Invasive Species monitoring
- Erosion and Sediment Control Monitoring
- Log books to ensure source materials are clean
- Road Impact Assessment

## 5. Improve Enforcement

- Improve baseline information for permit sites to assist with enforcement
- Refundable securities that are volume based (e.g. \$3/m<sup>3</sup>)
- Include dispatchers and source locations as finable entities
- Require additional/elevated permit fees for unpermitted sites
- Require log books and/or laboratory analysis for unpermitted and unaccounted for soils

## 6. Aesthetic and Nuisance Impacts

- Require a minimum buffer from any property line for any fill placement
- Require maximum grade or elevation change in proximity to property lines
- Require property ownership duration (e.g. 2-3 years) prior to issuing permit
- Require BC Farm Tax Status for farm related fill projects.
- Permit renewal fees (to assist in reducing project duration)
- Increase volume fees for road maintenance and repair



# Bylaw Amendment Options

## Potential Constraints and Challenges for consideration...

### 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. Different sites, different sizes, different concerns

- Lot sizes and locations vary (Urban vs Rural)
- Property uses vary (Agricultural vs Commercial vs Residential)
- Not all projects have the same opportunity for detrimental impacts
- Soil deposit volumes (project sizes) differ in extent of potential impacts to roads, traffic, hydrology, etc.
- What size and locations of projects should require assessments?
- What projects should require public notification (size /location) and to what extent?

### 4. Improve Enforcement

- Staff Resources

### 5. Impacts to adjacent properties and infrastructure

- Aesthetic impacts are subjective.
- Road impacts would be challenging to connect directly to a specific site versus regular road use.
- Climate/weather changes from year to year may impact groundwater levels and drainage patterns.

### 6. Land use and property ownership changes

- Land use changes following soil deposition projects.
- New owners can lead to new uses.



# Next Steps

1. Report back to Council on Consultation Feedback and with a Draft Soil Deposit Bylaw for their consideration – Nov 2016.
2. Present the Draft Bylaw to residents and stakeholders at a subsequent Openhouse for further comment and questions – January 2017
3. Report back to Council on Consultation Feedback- February 2017.
4. Submit the Soil Deposit Bylaw to Council for their consideration and adoption.

**Thank you for attending!**