the partnership
for water sustainability in bc

MANAGING RESIDENTIAL OIL HEAT SYSTEMS IN THE CAPITAL REGIONAL DISTRICT

A Review of Stakeholder Views and Actions Concerning Prevention of Fuel Oil Spills

September 19, 2014

Prepared by the Partnership for Water Sustainability in British Columbia

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Introduction: On December 11, 2012, the *Victoria Times Colonist* reported that there had been "28 reported spills of contaminants (in the Capital Regional District) in 2012, compared to a dozen between 2004 and 2011." Many of the discharges were home heating oil which fouled the properties of homeowners, adjoining properties and required clean up in nearby watercourses. The costs to property owners and responding authorities were significant in some cases. Conservation organizations also committed resources to the clean-up tasks.

In view of the public concern about these releases, the Victoria Real Estate Board hosted an information session in July 2013 where invited stakeholders shared their views about managing residential heating oil systems. There was consensus that management of residential heating oil systems could be improved with a view to prevention. Property owners could be more aware of risks, the need for regular maintenance and the prudence of removing obsolete equipment, including underground storage tanks. Local government departments might increase their measures to support homeowner action, including removal of obsolete equipment.

As a participant in the information session, the Partnership for Water Sustainability in British Columbia (PWS) saw the opportunity to carry out a small research project that would review management of home heating oil systems throughout the CRD. Three objectives were set. The first called for a survey of the views of stakeholders to get their views on prevention. The second was exploration of strategy to quantify the financial and environmental risks posed by home heating oil systems in the CRD. The final objective called for a scan of the inventory systems used by local governments to support programs to manage home heating oil systems with the goal of preventing spills into the environment. To better understand conditions in the CRD, the research reviewed other regions of British Columbia and Canada to observe strategies employed to prevent spills from home heating oil systems, thus reducing financial loss and harm to the environment.

> The Capital Regional District (CRD) was incorporated in 1966 as an order of government to provide regional decision-making, shared local government services and local decision-making in rural areas. The CRD's jurisdiction is the Southern tip of Vancouver Island and the surrounding 70 Gulf Islands. As a corporate entity the CRD is governed by a Board of Directors, made up of elected municipal and electoral area representatives from 13 municipalities and three electoral (unincorporated) areas. The CRD's administration is overseen by a Chief Administrative Officer and an Executive Leadership Team that are appointed by the Board as officers of the corporation. (https://www.crd.bc.ca/about/what-is-crd.)

The PWS thanks the Victoria Real Estate Board for its donation for the project. The author appreciates the time taken by individuals representing stakeholder organizations who took time to discuss the research and respond to questions.

Summary of Findings:

- There is at least a 10.5% chance that homes constructed in 1991 or earlier in the CRD had oil heating installed at the time the homes were initially occupied.
- Soil conditions in some areas of the CRD allowed the installation of underground storage tanks (USTs) on residential properties. Due to alterations of heating oil systems on specific properties, USTs have been decommissioned or removed; unfortunately, an unknown number of these tanks have been abandoned without record.
- The type and completeness of records for residential heating oil systems kept by municipal departments vary and omissions regarding changes to these systems occur due to failure to report by property owners and contractors, and for other reasons.
- The type and condition of inventories makes it difficult to aggregate information about residential oil heating systems. Information can be found by searching specific addresses.
- Experience and research illustrates that USTs fail. If the volume and plume (spread of oil through the soil) of spilled fuel above or below ground reaches the extent of being a contaminant under the regulations of the *Environmental Management Act* (BC), the onus of correcting the damage falls on the property owner. Costly losses occur for the property owner and other stakeholders.
- Among residential properties in the CRD, there will be three or more decades of failure of USTs that have been left unmanaged or unknown.

A. UNDERSTANDING THE RISKS

1. Exposure

"The Colquitz watershed is no stranger to oil spills. Since 2011 there have been at least eight oil spills that contaminated the creek, including a 1,100 litre home heating oil spill in November 2011 and a mineral oil leak from a B.C. Hydro line last year." (Heating oil spill contaminates Colquitz River Park," Victoria *News,* Dec. 13, 2013). In recent years CRD media have reported on more than two dozen serious discharges of home heating oil into the environment. These events resulted in significant costs for property owners, local government departments, and non-profit organizations involved in protection of watersheds. Failure of USTs caused some of the damaging leaks; often, unfortunate owners were unaware of the condition of heating oil systems on their property or, in some cases that USTs even existed. Other parties affected adversely by these events included insurers, mortgage lenders, previous owners of the subject properties, and real estate licensees.

The reader can refer to Appendix One for links to media articles describing spills of residential heating oil and the financial impacts of these mishaps on homeowners and other affected parties.

The degree of financial risk due to impairment of the real property assets depends on the extent of contamination. Leakage may be minor and local to the subject property. In more severe cases leaked oil may migrate widely into the foundations and soils of the subject property and neighbouring properties; some incidents result in contamination of nearby streams. When leakage of heating oil is extensive and

evidenced by smell, the plume of the oil in the soil-and- or visual discharge, the affected soils may be considered hazardous material and trigger a protocol for removal under the regulations of the *Environmental Management Act.* The required remediation can be costly.

In all cases of heating oil leaks, the property owner incurs expense. If neighbours are affected, they may have to sue for compensation of the costs to remediate damages caused by the hazardous material on their property. If the property insurance policy provides property owner protection for some aspects of damages due to heating oil, insurers may face losses. Mortgage lenders may face losses if the cost of remediating damages exceeds the value of the property owner's assets. Local government departments may be involved in cleaning up spills, including contamination of waterways. Compensation for these outlays will be sought from the property owner.

In many cases evidence of fuel oil leakage is found at the time of sale of the property. Usually a buyer will be advised by a real estate licensee to ask the seller whether or not the property has heating oil equipment, particularly a UST. In the CRD, if the house on the property was constructed prior to 1992, there is at least a 10.5% probability that oil may have been used for heating (after 1992 the CRD housing industry had access to natural gas for heating, a lower cost and more efficient option to heating oil). Sellers may be unaware of the presence of a UST. Municipal records vary regarding residential heating oil systems and their condition for specific properties. Increasingly, sellers and buyers resort to an ultrasound scan or other method to detect the possible presence of a UST. Unfortunately, there have been cases of scans confirming no UST on site which later proved wrong when leakage occurred.

2. Residential Heating Oil Systems, Research and Risk Assessment in Canada

Two significant, recent studies concerning spills and leakage from residential heating oil systems have been published and demonstrate that the risk posed by failure of home heating oil systems is a serious concern for the insurance industry and underwriting of a wide range of real property coverage.

Industry Report on Atlantic Domestic Oil Spill Claims (2012), Insurance Bureau of Canada (IBC) - http://www.ibc.ca/en/In_the_Community/documents/Oil%20Spill%20Report.pdf.

In 2005 the IBC established an Oil Spill Data Collection Committee which surveyed the claims experience for the period 2008-2011 concerning residential heating oil spills covered by regional insurers. These members represented 86% to 89% of the home insurance market in the Maritime region during the study period. "Combined results from participating insurers for 2008 through 2011 indicate that there were 663 insured domestic oil spills in Atlantic Canada, representing $78.58 million in insurance claims." The amount of each claim averaged $118,521; however, claims may have been settled for less than the claimed amount.

Summarized findings of this project were:

- More than 50% of spills reported were the result of oil tank corrosion; of the 356 corrosion claims reported, 279 involved outdoor tanks.
- Although an oil spill can be connected to factors other than the tank itself, 376 of the 663 claims were specific to the tank. Other reported sources of oil escape were the filter system; fittings, valves or nipples; the heating unit or burner; and the line.

- Outdoor tanks were responsible for the largest number of all insurance claims; 500 of the 663 insurance claims tracked involved outdoor tanks.
- Newer tanks are not immune to failure; 133 insurance claims were made in situations where the tank was 0 to 5 years old, and 293 claims were made for tanks that were 6 to 10 years old.

Data for the four-year period identified an average of 166 accidents per year. Eighty percent of the spills involved tanks that were 6 or more years old and steel tanks were involved in 92% of the incidents. Corrosion was the most common identified cause -356 incidents; however, only 8 underground tanks were involved.

Residential Fuel Oil Distribution Systems: an Analysis of Risk and Loss Prevention Initiative (2010), published by Spectius Underwriting Solutions (now *Canadian Reports*) - http://www.halwellmutual.com/files/Halwell/Underwriting%20Documents/Residential%20Fuel%20Oil%20Distribution%20Systems%20-%20An%20analysis%20of%20risk%20and%20loss%20prevention%20initiative.pdf.

This report estimated that 1,181,007 homes in Canada used heating oil in 2010. Of these, 82,158, or 7%, were in British Columbia- (assuming that most of the homes using heating oil were constructed prior to 1991, we find 7% of BC homes in the category – [82,158/1,243,895]). By this measure, in the 1991 baseline year, 8720 - CRD residential properties would have had oil heating systems.

This report concludes that "Out of approximately 1,181,000 homes (in Canada) with oil tanks, the insurance industry derives approximately $1.20 billion in premium. Based on extensive inspection data, approximately 625,933 installations are not in compliance with Can/CSAB 139 (Installation Code For Oil-Burning Equipment, as amended from time to time) and approximately 72,227 would fail ultrasound testing. Based on an average of $65,000 per clean-up, the potential exposure on failed tanks could amount to over $4.5 billion." (http://shop.csa.ca/en/canada/fuel-burning-equipment/b139-09/invt/27020552009/).

3. Experience Dealing With Risk in Three BC Municipalities

It is worth observing the experience of the District of Oak Bay as well as two Lower Mainland municipalities, the District of North Vancouver (DNV) and the District of West Vancouver (DWV), which for several decades have been concerned with the failure of residential heating oil systems, particularly USTs. In these two districts as in most of Metro Vancouver, natural gas became available in 1957-59 and, subsequently, heating oil systems were phased out in new housing construction. Nevertheless, both jurisdictions have been dealing with on-going failures of USTs during the last two decades – in some cases, 40 or more years after the tanks were installed.

<u>District of North Vancouver</u>

The DNV focuses on managing the potential impacts of contamination of soils and waterways through by-law 6515 (1993), which has been amended 11 times. In short, the bylaw makes it illegal for a person or property owner to release a contaminant; it allows the DNV to regulate the import and export of soils. The District also requires disclosure regarding oil tanks by owners wanting development permits.

Under this approach all onus is on the property owner to take steps to manage their oil heating systems, especially USTs. The reader may want to refer to the DNV website at: http://www.dnv.org/upload/documents/bylaws/6515.htm#_Toc117396890; and http://www.dnv.org/article.asp?a=4716.

District of West Vancouver

In the late 1980s the DWV Fire Department commenced a strategy to deal with USTs. The Department carried out a door to door survey of residential properties to confirm the presence and condition of oil heating systems, including USTs. Based on information provided by homeowners, this process allowed the Department to update its records drawn from permitting files, create a digital resource, and commence a process of encouraging property owners to remove USTs or render them inert. The Department has supported homeowner action by providing general information, instituting a clear permitting process, providing a list of qualified environmental consultants, and devoting administration time to dealing with enquiries. The Department has found that over the years, this approach has gradually reduced the number of USTs in the District. Details were not available. http://westvancouver.ca//home-building-property/pets-wildlife-environment/underground-oil-tanks.

District of Oak Bay

The District of Oak Bay has employed a strategy similar to that of DWV. In 1998, the Oak Bay Fire Department, using building permit records, updated and made digital its inventory of properties that had oil heating systems installed. Where possible, the inventory noted the location of oil tanks, including USTs, on properties. In view of the number of USTs -1800 in 1998- the department started an on-going public education program about the risk of tank failures and the process to remove them or render them inert. The Department has committed administrative time for staff to deal with property owner enquiries and enable permitting leading to removal of tanks, especially USTs. In August 2012, the district estimated that were fewer than 370 USTs within its boundaries.

The experiences of DNV and DWV suggest that failure of USTs in the CRD likely will continue for two to three more decades. The districts of Oak Bay and West Vancouver have demonstrated that a well-supported public education strategy together with practical bylaws, permitting processes, and staff resources to deal with enquiries encourages homeowners to understand the risk posed by USTs that are or may be on their property. Gradually, both districts have reduced the number of USTs in their jurisdictions.

4. Residential Heating Oil Systems, Research and Risk Assessment in the CRD

Inventories kept by local governments in the CRD are a critical step in managing the condition of residential heating oil systems. In most cases fire departments maintain inventory records. The data in records is derived from permit activity regarding the installation, removal and modification of heating oil systems. While some municipal departments only have information about oil heating systems in paper records, most have converted to digital inventories. The data in the inventories is updated as permits are taken out by property owners, or their representatives, and as inspections are completed by

municipal personnel. These records have involved, and to some extent still involve, voluntary provision of information.

Local government experience confirms that even the most up to date inventories may be historically incomplete, due to omitted reporting by property owners and contractors who may have removed USTs - or altered, decommissioned, or abandoned heating oil systems/tanks including USTs.

This report, Managing Residential Heating Oil Systems in the CRD, has derived two estimates for the number of heating oil systems on residential properties in the CRD. The analysis uses 1991 as a baseline year, because natural gas became available for builders in 1992. Gas rapidly became a preferred fuel for home heating systems. From 1991 to 2010, consumption of light fuel oil in BC decreased 86.4% (measured by thousands of cubic metres: source Statistics Canada *Energy Statistics Handbook*). It is likely that 1991 was the year that the most residential heating oil systems were in existence in the CRD. (this research did not have the resources to examine records of municipalities and public utilities to verify this assumption).

TABLE ONE

CRD HOUSEHOLDS WITH OIL HEATING SYSTEMS/TANKS

Local Government	2011 Households	1991 Households	Using Oil Heating	Percentage 1991 Baseline
Central Saanich	6,595	5,045	252	5%
Colwood	6,095	4,335	217	5%
Esquimalt*	8,035	6,915	685	9.90%
Highlands	830	80	4	5%
Langford	11,680	11,225	561	5%
Metchosin	1,890	1,390	69	5%
North Saanich*	4,505	3,590	120	3.30%
Oak Bay^	7,765	7,660	1,800	23.50%
Saanich*	45,390	36,310	4,385	12.10%
Sidney	5,330	4,455	222	5%
Sooke*	4,505	3,640	320	8.80%
Victoria	42,960	36,295	4,355	12%
View Royal*	3,950	2,310	65	2.80%
Total CRD^^	149,530	123,250	13,055	10.66%

The number of households is taken from Census Canada tables. *Esquimalt, North Saanich, Saanich, Sooke and View Royal had inventory information to provide a current estimate of properties that have or had oil heating systems in any condition. The percentage is derived from the aggregate number of systems divided by the aggregate number of households in 1991 – the base year. This year was taken because natural gas became available to CRD builders in 1992 and, subsequently was a preferred fuel choice. Those municipalities that could not provide estimates were given a 5% ratio of oil heating systems to 1991 households. (5% is the average ratio for municipalities that provided the lowest inventory estimates). The City of Victoria, in 1991, probably had oil heating systems at rates similar to Saanich and Oak Bay – at least 12%.

^In 1998, Oak Bay estimated that there were 1800 properties with USTs. By August 2012 the number had been reduced to about 375. For the calculations in this table, 1800 were counted for the baseline year of 1991.
^^The total CRD does not include the rural area (Juan de Fuca) or the Gulf Islands.
Finally, the reader should note that the calculations in this table did not count oil heating systems and tanks that were removed since 1991. This information could be accessed, but it would be a time consuming process. Therefore the total number of households with oil heating systems in the CRD in 1991 is higher than the number given in the table.

The first estimate of the number of households with oil heating systems is a low-range estimate – a very rough figure based on light fuel oil consumption in Canada (information from the *Energy Statistics Handbook* published by Statistics Canada). In 1991, BC households consumed about 7% of heating oil in Canada; by 2010 the ratio had fallen to 1.6%. There were 123,520 households in the CRD in 1991 (not counting First Nations reserves and the Gulf Islands). Assuming that consumption of heating oil in the CRD was the same as the BC average, there were 8720 residential oil heating systems at that time. This is a very rough estimate.

The second and higher estimate is derived from the inventories kept by municipalities. Five of the municipalities (those marked with asterisks in Table One) have recent inventory or data regarding the number of residential properties that used heating oil systems presently or at some time in the past. The weighted average number of households with oil heating systems in these six municipalities was 10.66%. Based on 123,520 households in 1991, there were about 13,055 that had oil heating systems.

This calculation is an underestimate because a number of residential oil heating systems have been replaced since 1991. For example, the District of Oak Bay fire department in the process described above reduced USTs from 1800 in 1998 to fewer than 375 in 2012.

This analysis concludes that at least 10.5% of households constructed before 1992 in the CRD – at least 1 in 10, had oil heating systems when the house was first occupied. Depending on soil conditions, a UST might have been installed. A small percentage of homes constructed after 1991 used heating oil systems as well. A search of permit records for a specific address would be a first step in determining whether an oil heating system was used and whether a UST might remain at the address.

B. INVENTORY INFORMATION

1. Record Keeping and Experience

As discussed above, municipal records regarding oil heating systems on residential properties serve two primary purposes. The first is to assist property owners with information about an oil heating system that may have been installed on the property. The second is to allow the municipality to encourage those property owners to manage (properly maintain) these systems or decommission or remove abandoned systems, particularly USTs. Such a two-part strategy leads to steady elimination of USTs as illustrated by the experience of the districts of Oak Bay and West Vancouver. Of course, these measures help prevent damaging fuel oil spills from failed USTs and other heating oil equipment.

New Westminster and the District of Saanich are pursuing strategies similar to the districts of Oak Bay and West Vancouver. The District of Saanich recently enacted Bylaw 9265, *Oil Burning Equipment and Flammable Liquid and Combustible Liquid Fuel Tank Bylaw.* Under the regulations, "property owners are responsible for removing underground oil tanks that are not required or have been out of service for two years, whichever comes first. Oil tanks which have been inerted with a permit issued by the Fire Department prior to adoption of Bylaw 9265 are exempt from this requirement. However, insurance and financial institutions may require all inerted tanks be removed before approving or renewing home insurance policies or mortgage agreements."
(http://saanich.ca/services/safety/oilbylaw.html.)

Readers can refer to the city of New Westminster at
http://www.newwestcity.ca/citypage/index/articles/469.php.

As municipalities become focused on prevention, the quality (completeness and fields of data) of inventories of properties with oil heating systems (present or past) becomes very important. Ultimately better management, including removal, of such equipment must be decided by property owners. There may be no choice for owners whose oil tanks or equipment failed causing leakage that falls under the *Environmental Management Act* (BC).

Provincial regulation of residential heating oil systems does not focus on prevention. When fuel oil is released into the environment in a quantity or under conditions considered hazardous, the regulations of the *Environmental Management Act* are applied. These regulations specify the protocol for cleaning up spills of hazardous materials. The Environmental Law Clinic at the University of Victoria has published a very helpful review of regulatory concerns and heating oil – "Preventing Home Heating Oil Spills in British Columbia" http://www.elc.uvic.ca/press/documents/2012-02-01-PreventingHomeHeatingOilSpillsinBC_Nov2012.pdf.

2. Inventories and Aggregate Management of Risk

Presently, neither the CRD nor any of its municipal members participate in joint strategy to deal with management of residential heating oil systems; especially USTs, no longer in use or that have been abandoned. Several arguments support joint action regarding these concerns.

The first is that the risk of contamination of real property assets, both personal and community, can be considerable as illustrated by several cases of heating oil spills in the CRD reported in media articles (readers can refer to Appendix One). Dealing with contamination is expensive for owners and agencies required to respond. Non-profit organizations such as stream-keepers also incur costs when helping with cleanup of watersheds that may have been fouled by spills of heating oil. Other stakeholders subject to risk include insurers, real estate licensees, lenders, fuel providers, etc.

The second is that spills that enter water ways threaten ecological habitat, amenity values of parks and other common areas, as well as adjacent private property. Spills in sensitive environmental areas may cause damages lasting years. Spills and contamination pay no attention to local government boundaries.

Based on Canadian research of financial risks related to residential fuel oil spills and on the experience of a few BC municipalities, the potential advantages of prevention are considerable. A key component of a risk management strategy - remove unused and abandoned heating systems and USTs, must be an up to date and searchable inventory of properties. An inventory should include a map layer enabling location of properties known to (or possibly) contain oil heating systems and tanks. Those located near sensitive environmental areas and whose condition is unknown could be targeted for owner contact and follow up support.

In any case, any prevention strategy requires an accurate and searchable inventory to be effective.

C. VIEWS ON PREVENTION

Based on interviews with persons in various departments of 11 CRD municipalities, the researcher found no dominant view about strategies to prevent spills of fuel oil on residential properties.
Clearly, prevention is important to some municipalities. The districts of Oak bay and Saanich have employed specific prevention strategies. Some municipalities indicated that USTs were not much of a concern in their jurisdictions; however, these places lacked inventory information and did not estimate potential financial and environmental risk.

In summary, views on prevention among municipalities include the following:

- Council and staff are concerned about risk and support staff action – 7.
- Council support staff and/or consultant research – 6.
- Municipal departments are improving/modernizing inventory – 5.
- Council plans soon to change regulation - 2.
- Sharing a common inventory process among municipalities is desirable – 5.

The Partnership for Water Sustainability in BC believes that environmental risks associated with releases of heating oil into the environment pose a serious threat to watershed habitats, flora and fauna. Improved prevention certainly is possible and ought to be a priority among regional municipalities and the Capital Regional District.

D. LIMITATIONS OF THIS STUDY

With limited resources, this research pursued three objectives. Frist of all, representatives of local government were contacted for their views about improving prevention of heating oil spills. Their perspectives are summarized above. No contact was made with the District of Highlands and the City of Langford.

Secondly, the researcher was able to generally review with local government representatives the heating oil systems inventory process used by their municipality. Detailed comparison was not possible, but it was clear that much more coordination would be desirable.

The final objective concerned quantifying the extent of financial and property risk posed by residential heating oil systems. This task achieved limited results. Now there is an estimate of the probable number of residential properties in the CRD that have or once had heating oil systems. However, it was not possible to describe their condition, the number of USTs and other factors that could help provide an estimate of the financial and property risks posed by these systems. Table One summarizes the available data and indicates its limitations.

The Environmental Law Clinic at the University of Victoria has published a review of provincial regulation and possible actions that would improve prevention (refer to page 9). Therefore, the current study did not review provincial legislation; nor, did it have the resources to explore with the fuel purveyor industry the kinds of measures that would prevent delivery to residential systems at risk of failure. In view of these and other limitations, the following recommendations are offered.

5. RECOMMENDATIONS

1. The CRD, on behalf of its municipal members, initiate and help coordinate a project to design and adopt one inventory system to track residential properties with oil heating systems in any condition.

2. The CRD, on behalf of its municipal members initiate and help coordinate a project to locate residential properties with USTs.

3. The CRD endorse and support a district-wide program to encourage property owners to remove USTs.

4. The Victoria Real Estate Board continue its efforts to inform its member REALTORS® that underground fuel storage tanks present a serious risk of failure

5. Stakeholders in the CRD, including fuel purveyors, concerned about the risks posed by USTs ought to support further research and action that will prevent spills of fuel oil into the environment. This research did not establish whether or not a compulsive “certification” regime can be enacted under local government powers.

6. Stakeholders in the CRD ought to invite the Insurance Bureau of Canada and members of the insurance industry to support further research and action leading to prevention of fuel oil spills, especially on residential properties.

APPENDIX ONE

MEDIA COVERAGE OF FUEL OIL TOPICS IN THE CAPITAL REGIONAL DISTRICT AND OTHER AREAS

1. Saanich will no longer allow burying old oil tanks
Times Colonist - Bill Cleverley - May 1, 2014 10:07 –

http://www.timescolonist.com/news/local/saanich-will-no-longer-allow-burying-old-oil-tanks-1.1018120#sthash.aHZ2pqUh.dpuf.

http://www.timescolonist.com/news/local/saanich-will-no-longer-allow-burying-old-oil-tanks-1.1018120

2. Heating oil spill contaminates Colquitz River Park
http://www.vicnews.com/news/235791411.html . Posted Dec 13, 2013 at 1:00 PM – updated Dec 13, 2013 at 4:50 PM

3. Heating-oil spill forces demolition of home and a $750,000 bill
By *Vancouver Sun* November 15, 2012

"A Saanich home was levelled this week after attempts to clean up a heating oil spill failed, making demolition the only option."
http://www.canada.com/vancouversun/news/westcoastnews/story.html?id=f4dc8d2d-2949-4c82-9763-046af7b21da8.

4. Saanich home destroyed in botched heating-oil delivery

Aging tanks bring a mess of trouble

THE VICTORIA TIMES COLONIST - Judith Lavoie
NOVEMBER 14, 2012 02:00 AM

HTTP://WWW.PACIFICGROUPDEVELOPMENTS.COM/NEWS/SAANICH-HOME-DESTROYED-BOTCHED-HEATING-OIL-DELIVERY.

Pacific Group Developments reprinted these articles as a service to their readers**.**

5. Heating oil spill contaminates Colquitz River Park
http://www.vicnews.com/news/235791411.html

6. Heating oil spill into Gorge traced to nearby home's abandoned tank

ww.timescolonist.com/news/heating-oil-spill-into-gorge-traced-to-nearby-home-s-abandoned-tank-1.21514.

THE VICTORIA TIMES COLONIST - DEC. 8, 2012

"A contractor using ground penetrating radar has found the source of two heating oil spills that flowed into public storm drains, then into the Gorge Waterway this year.

The abandoned oil tank with 2,000 litres of an oil-water mixture was discovered Thursday in a yard adjacent to Gina Dolinksy's home on Adelaide Avenue, said Graham Knox, B.C.'s environmental emergency program manager."

7. Home Oil Tank Leaks Into Cecelia Creek

Burnside Gorge March 31, 2013

"A leak from a home heating oil tank recently found its way into the Cecelia Creek which runs along a stretch of the Galloping Goose Trail behind the Burnside Gorge Community Centre. Staff at the Burnside Gorge detected the scent of fuel in the area and called it in to the city of Victoria which sent a crew to investigate within hours of its report. Booms were set up to control the leak into the creek."

8. $90K oil tank bill sparks warning -Thousands of buried oil tanks 'ticking time bombs' for N. Shore
North Shore News - Brent Richter -August 8, 2012 01:00 AM

"WHEN Susanne Carrillo sold her North Vancouver home in June, she wound up with a nightmarish parting gift - a $90,000 bill for remediating soil contaminated by a leaky oil tank she didn't even know she had. Carrillo is now warning her former neighbours to find out if they have one of the thousands of "ticking time bombs," that remain buried under North Shore yards - and calling on the province to help out others who find themselves in her shoes."
http://www.nsnews.com/news/90k-oil-tank-bill-sparks-warning-1.362559#sthash.zOrKj049.dpuf.

9. Removal of backyard oil tank costs woman small fortune (*BCTV NEWS*)
http://bc.ctvnews.ca/removal-of-backyard-oil-tank-costs-woman-small-fortune-1.621511#ixzz3Btvan Fire S95lOk.

"Ernst (Chief West Van Fire Services) estimates that about 1,000 tanks have already been removed from West Vancouver lawns, but 2,000 or 3,000 remain. Susan Aldred discovered one in her yard when she tried to sell her home in 2008; she says the previous owner had given her the impression it had been taken care of. "I had no idea there was an oil tank -- there was no signs of an oil tank," she said."
http://bc.ctvnews.ca/removal-of-backyard-oil-tank-costs-woman-small-fortune-1.621511#ixzz3BtSQdqAd

10. **Re District of North Vancouver – from** Officials sound alarm on oil tanks
***North Shore News*, Aug. 22, 2008.**
http://www.canada.com/northshorenews/news/story.html?id=d983870d-e53d-4528-b1c1-3e072aad210f.

11. Backyard Nightmare: Leaking oil tank costs $160,000 to clean up.
The Province, June 27, 2008.
http://www2.canada.com/theprovince/news/story.html?id=faebd04d-2991-442c-b181-2ed6f34a817c

"A North Shore woman is suing the former owners of a home in West Vancouver after she shelled out more than $160,000 to remove 5,000 litres of contaminated fuel from a leaky home-heating oil tank buried in her backyard.

Susan Aldred says she discovered the tank when she decided to sell her home on Mathers Avenue in February. She wonders how many other homeowners are similarly unaware of such a problem. The tank had not been used for about 25 years and was buried up against the house on a steep slope with flowing underground water." http://www2.canada.com/theprovince/news/story.html?id=faebd04d-2991-442c-b181-2ed6f34a817c

12. Hidden contamination: it wasn't my tank! *Saxe Law Office Blog*

by **Dianne Saxe** on July 30, 2010

"In 2001, Ms. Aldred purchased a West Vancouver property from the Colbecks, who had purchased it themselves two years before. When she mentioned a building inspection, the Colbecks gave her the inspection report they had commissioned, and assured her that the old underground storage tank on the property had been properly dealt with. (The Colbecks gave these assurances on the basis of a report from their contractor, who had been on site for less than a day and charged only $900, yet claimed that he had pumped out the tank, cleaned it and filled it with sand, removed filler/vent pipes and replaced the sidewalk.)

Ms. Aldred relied on these assurances, which were untrue. When she listed the property for sale in 2008, she discovered that the UST was still on the property. This began a chain of lawsuits. Ms. Aldred paid over $200,000 for remediation and is now suing her remediation contractor. The sale of the property at $1.57 million fell through, and she ultimately sold it for $1 million. [see related case *Gulston v Aldred]."*

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