
BC Ministry of Environment Recommendations for a Sustainable Funding Mechanism to Support the BC Environmental Emergencies Program

*Addendum to PwC's
2008 report*

March 2013



Contents

Introduction	1
Summary of Changes Since the 2008 Report	3
Summary of Spill Response Funding Mechanisms	5
Industry Supported Response Organizations	16

Introduction

In 2008, PwC was engaged by the Ministry of Environment (MoE) to evaluate funding mechanisms used in other jurisdictions to identify current legislation and British Columbia's (BC) capacity for spill prevention, response and recovery for industry sectors that produce, store or transport substantive volumes of hydrocarbons and other hazardous materials in the province¹.

Among those jurisdictions surveyed, PwC found similarities in funding mechanisms and prevention and response programs. These included levies or fees paid by industry to support government programs and to ensure sufficient funding was available for spill response where cost recovery from the responsible party was not possible.

At that time, PwC also found that in BC:

- Funding to support government prevention and preparedness activities was generally lacking for both marine and terrestrial spills;
- There was no consistent and dedicated funding mechanism to support government activities related to spill prevention and preparedness for terrestrial environment;
- Existing legislation did not establish liability for longer-term recovery or restoration of natural resources damaged or destroyed by a hazardous materials release; and
- There were no funding mechanisms, initiatives or organizations involved in prevention and preparedness for marine spills of non-persistent oils and hazardous materials.

PwC made the following six recommendations for funding mechanisms to address apparent or potential deficiencies in BC and to support the initiatives of the MoE Environmental Emergencies Program (EEP):

1. Introduction of an additional bulk oil levy on movement of oil in coastal waters to support MoE EEP initiatives related to preparedness, prevention, remediation/ restoration, and oild wildlife response capabilities;
2. Introduction of a levy on terrestrial production and movement of hazardous materials, including hydrocarbons to support a terrestrial emergency spill response and prevention program;
3. Increasing enforcement of environmental law, and expanding the mandates of the existing BC Sustainable Environment Fund that is supported by revenue generated through environmental penalties, fines and cost recovery settlements;
4. Introducing registration fees to facilities producing, storing and transporting oil or hazardous materials on land;
5. Broadening the mandate of the Oil and Gas Commission's Orphan Site Reclamation fund to include a terrestrial hydrocarbon spill response fund to cover costs associated with a land based oil spill; and
6. Broadening financial guarantee requirements in the BC EMA and Canada MLA to ensure responsible parties were capable of covering costs associated with recovery and remediation in the event of a spill.

Additionally, PwC recommended that consideration of these options be contingent on assessments of the following:

- Adequacy of the current capacity to enforce existing environmental law;
- Capacity of existing response organizations;
- Determining whether existing limits to liability and/or international, national spill response funds are adequate given the likely extent of damages should a spill occur; and,
- Ability of existing Federal and Provincial environmental funding mechanisms to pay for restoration and preparedness activities.

¹ PwC, 2008. Recommendations for a Sustainable Funding Mechanism to Support BC Ministry of Environment Environmental Emergency Program. Available at: http://www.env.gov.bc.ca/eemp/resources/pdf/price_waterhouse_program_funding_report.pdf

Since PwC's report was released in 2008, the MoE EEP has been exploring funding mechanisms to support a government spill preparedness and response program in BC. In the fall of 2012, the MoE released a policy intentions paper for broad stakeholder consultation outlining the Ministry's intentions for improving BC's land based spill preparedness and response system². This intentions paper outlines the Ministry's intentions for establishing an industry funded regime for land based spill preparedness and response, clarifying rules and requirements for natural resource damage assessment and restoration following a spill, and ensuring effective government oversight and coordination of industry spill response. The issues and intentions discussed in this ministerial paper follow from many of the findings in PwC's 2008 report.

PwC was subsequently asked to revisit its 2008 report to update specific information to the present (2013). More specifically, PwC reviewed and updated:

- The summary information for industry supported funding mechanisms in use in other jurisdictions to support spill preparedness and response;
- The summary information of industry supported non-government response organizations in BC and other jurisdictions; and,
- The summary of existing legislation, funding mechanisms and programs available for preparedness and response to spill of hazardous materials and hydrocarbons in the terrestrial environment.

PwC also reviewed and summarized industry funded government spill response programs from two other jurisdictions: Norway and Australia. Also included in our review were two additional industry supported response organizations.

In conducting our update, PwC reviewed publically available information for each organization. Our review considered information available from internet web sites. In a few cases, information was not available to provide an update and this has been noted in the following addendum to our 2008 report.

² BC Ministry of Environment. Land Based Spill Preparedness and Response in British Columbia. Policy intentions paper for consultation. Available at: http://www.env.gov.bc.ca/epd/codes/spr_eep/pdf/spill_preparedness_response_ip.pdf

Summary of Changes since the 2008 Report

The following section provides a summary of changes in levies or other aspects of the funding mechanisms reviewed in PwC's 2008 report.

United States Oil Spill Liability Trust Fund

- The US Oil Spill Liability Trust Fund (OSLTF) levy has increased from \$0.05/ barrel to \$0.08/ barrel, and will increase further to \$0.09/barrel in 2017.
- The OSLTF fund balance is forecast to be \$2.45 billion in FY2013, up from \$1 billion in FY2008.
- The Administration is considering increasing the statutory expenditure limit for any single incident to \$1.5 billion and \$750 million for natural resource damages. Currently the limit is \$1 billion and \$500 million for natural resource damages.

State of Alaska Oil Spill Response Fund

- The State of Alaska Oil Spill Response Fund balance has increased in FY2012 to \$49.5 million from \$44.1 million in 2007. There has been no change in levy amounts.

State of Washington Oil Spill Response Account

- The State of Washington Oil Spill Response Account (OSRA) balance was reported to be less than \$8 million in FY2012, triggering re-imposition of the 1 cent per barrel levy. There have been no changes in the levy amounts.
- The OSRA balance was \$9 million in FY2007. In 2009 state gov't had to transfer \$6.5 million from the State General Fund and cut eight positions in the Spills Program to cover the program revenue shortfall. The statutory limit of the OSRA has been reduced from \$25 million in 1991, to \$9 million.

State of Oregon Marine Spill Prevention Fund

- The State of Oregon Marine Spill Prevention Fund fees were revised in 2007 and remain in effect. Since 2007, revenues have declined and government is considering increasing fees in 2015.

State of California Oil Spill Response Trust Fund

- The State of California Oil Spill Response Trust Fund (OSRTF) balance is reported as \$12.4 million for FY2012 in the Governor's budget. The Oil Spill Prevention and Administration Fund (OSPAF) balance was \$11.6 million in FY2012. In FY2007, the Oil Spill Response Trust Fund balance was reported at \$58 million and the Prevention and Administration fund at \$17.7 million.
- The OSPAf fee increased in 2012 from \$0.05 per barrel to \$0.065 per barrel. The increase is effective until 2015, when it reverts back to \$0.05 per barrel. Annual non-tank vessel fees also increase in 2012 from \$500-2500, to \$650-3205/vessel.
- The California State Board of Equalization reports the OSRTF balance at \$50 million as of June 30, 2011, and notes that as the fund is at maximum, no fees are currently collected. PwC noted the current fund

balance appears to be \$12M and that this has occurred due to state government fiscal issues (a loan has been provided by the fund to the state government; to be re-paid to the fund in one year).

State of Hawaii Environmental Response Revolving Fund

- The State of Hawaii Environmental Response Revolving Fund levy amounts are unchanged. We were not able to determine the current balance; in FY2008 it was reported at approximately \$7 million.

Canada Ship-Source Oil Pollution Fund

- The Canada Ship-Source Oil Pollution Fund (SSOPF) fund balance has increased to \$395.8 million in FY2012, up from \$350.8 million in FY2006. The 6 cents/ barrel levy is currently not in place. Revenue source is interest and cost recovery.

Ontario's Bill133 Community Environment Fund

- No update on Ontario's Bill133 Community Environment Fund. In FY2009 and FY2010, \$50K and \$56K were disbursed, respectively. Funding was mostly for community environmental remediation projects.

Industry Supported Response Organizations

- No major updates in fees charged by Industry Supported Response Organizations.
- WCMRC and ECRC have been engaged by the Canadian Fuels Association to set up the Land Spill Emergency Preparedness Program

Summary of Spill Response Funding Mechanisms

Table 1. Summary of the Spill Response Funding Mechanisms existing in the Pacific US states and Canada. Figures are provided in local currency, unless otherwise specified. The fiscal year date refers to the beginning year.

Jurisdiction	Fund / Program	Funding Mechanisms	Purpose	Annual Revenues	Annual Expenses	Fund Balance	Notes
U.S.A.	Oil Spill Liability Trust Fund (OSLTF) Administered by US Coast Guard National Pollution Funds Center.	\$0.08 per barrel levy on oil produced or imported in the U.S. (Increasing to \$0.09 per barrel in 2017) ³ In 2008, the levy was \$0.05 per barrel. Other income includes: • Investment interest on principal • Civil and criminal penalties • Transfers from legacy pollution funds • Cost recovery	<i>Emergency Fund</i> is used for removal and natural resource damage assessments associated with: • Oil discharges from ships, • Discharges at industrial or onshore oil storage and production facilities. <i>Principle Fund</i> is used for: • Claims for uncompensated removal costs and damages • Appropriations to federal organizations	Forecast for FY2013 ⁴ Barrel Levy: \$258 million Cost Recovery: \$6 million Penalties: \$4.5 million Interest: \$88.3 million Transfers: \$0 Total: \$356.8million Note recent revenue forecasts are not available. This forecast was based on 2007 figures and is likely underestimated as the levy amount has since increased.	Actual for FY2011 ⁵ Oil Removal: \$229.1 million Claims for uncompensated removal costs or damages: \$35.7 million Appropriations to other gov't programs: \$94 million Total: \$358.8 million	Forecast ⁶ for FY2013: \$2.45 billion Forecast for FY2018: \$4.5 billion Fund balance for FY2008 was forecasted at \$1 billion.	Expenditures for any one oil pollution incident are limited to \$1.0 billion, of which no more than \$500 million may be paid for natural resource damages. ³ The Administration is considering a proposed increase of the statutory expenditure limit to \$1.5 billion and \$750 million for natural resource damages. ⁶

³ Oil Spill Liability Trust Fund Frequently Asked Questions. Available at: http://www.uscg.mil/npfc/About_NPFC/opa_faqs.asp.

⁴ Oil Spill Liability Trust Fund Forecast as of June 29, 2007. Available at: http://www.uscg.mil/npfc/docs/PDFs/Reports/OSLTF_Forecast.pdf

⁵ Oil Spill Liability Trust Fund Disbursements for FY 2011. Available at: http://www.uscg.mil/npfc/docs/PDFs/Reports/OSLTF_Report_FY11.pdf

⁶ Oil Spill Liability Trust Fund Liability Limits Reports for FY2012. Available at: http://www.uscg.mil/npfc/docs/PDFs/Reports/Liability_Limits_Report_2012.pdf#Figure10

Jurisdiction	Fund / Program	Funding Mechanisms	Purpose	Annual Revenues	Annual Expenses	Fund Balance	Notes
State of Alaska	Oil and Hazardous Substances Release Prevention and Response Fund	<p>Response Fund:</p> <ul style="list-style-type: none"> • \$0.01 per barrel levy on oil produced in the state of Alaska • Cost Recovery <p>Prevention Fund:</p> <ul style="list-style-type: none"> • \$0.04 per barrel levy on oil produced in the state of Alaska • Fines/settlements • Penalties • Cost recovery • Interest earned on balance of Response and Prevention accounts <p>There has been no change in response or prevention levy amounts since 2006.</p>	<p>Response Fund is used to respond to oil or hazardous substance release, or a threat of a release declared a disaster.</p> <p>Prevention Fund is used to prevent and mitigate the effects of oil and hazardous substance releases and ensure their cleanup through government planning, preparedness and rapid response.</p>	<p>FY2012 Response Fund⁷</p> <ul style="list-style-type: none"> • Barrel Levy: \$1.47 million • Federal transfers: \$0.042 million • Total: \$1.5 million <p>Prevention Fund^{8,9}</p> <ul style="list-style-type: none"> • Barrel Levy: \$4.3 million • Total: \$4.3 million 	<p>FY2012 Response Fund⁷</p> <ul style="list-style-type: none"> • Administration/Personnel (5 FTE): \$0.47 million • Other Services: \$1.0 million • Total: \$1.5 million <p>Prevention Fund⁸</p> <ul style="list-style-type: none"> • Administration/Personnel (36 FTE): \$3.5 million • Other: \$0.747 million • Total: \$4.3 million 	<p>FY2012 Response Fund: \$49.5 million⁹</p> <p>The Response Fund balance was \$44.1 million in FY2007.</p> <p>Prevention Fund: balance not available.</p>	<p>Statutory limit on response fund is \$50 million</p> <p>The Prevention fund does not have a statutory limit.</p>

⁷ State of Alaska FY2012 Governor's Operating Budget. Component – Response Fund Administration. Available at: http://omb.alaska.gov/ombfiles/12_budget/DEC/Proposed/comp2259.pdf

⁸ State of Alaska FY2012 Governor's Operating Budget. Component – Prevention and Emergency Response. Available at: http://omb.alaska.gov/ombfiles/12_budget/DEC/Proposed/comp2064.pdf

⁹ State of Alaska Oil & Hazardous Substance Release Prevention & Response Fund. Fiscal Years 2011-2012, Biennial Report. Available at: <http://dec.alaska.gov/spar/rfa/docs/budget/biennial/OHSRPRF%202011-2012%20Report%20.pdf>

Jurisdiction	Fund / Program	Funding Mechanisms	Purpose	Annual Revenues	Annual Expenses	Fund Balance	Notes
State of Washington	Spill Prevention, Preparedness and Response Program	<p>Oil Spill Response Account (OSRA):</p> <ul style="list-style-type: none"> • \$0.01 per barrel levied upon receipt of oil at the marine terminal¹⁰ <p>Oil Spill Prevention Account:</p> <ul style="list-style-type: none"> • \$0.04 Administration Tax, levied on receipt of crude oil at marine terminals <p>Vessel Response account:</p> <ul style="list-style-type: none"> • Vehicle certification fees <p>State Toxics Control Account:</p> <ul style="list-style-type: none"> • Hazardous Substances Tax • Penalties <p>Coastal Protection Fund:</p> <ul style="list-style-type: none"> • Penalties • marine gas tax 	<p>Response Account is used to respond to a spill of crude oil when costs exceed \$50,000.</p> <p>Prevention Account is used for facility and vessel inspections, oil transfer monitoring, contingency plan reviews, spill readiness drills and natural resource damages assessment on spills to water.</p> <p>Vessel Response Account funds a contingency tug, and a rescue tug</p> <p>State Toxics Control supports Hazardous Material Spill preparedness and response.</p> <p>Coastal Protection Fund funds activities for restoration of Natural resources damaged by oil spill</p> <p>General Fund is available for drug lab clean up and Oil spill task force activities</p>	<p>FY2012¹¹</p> <p>(Annual Account Revenues are reported biannually; figures shown are 50% of reported figures)</p> <ul style="list-style-type: none"> • Vessel response Account: \$33,000 • Oil Spill Prevention Account: \$3.0 million • Oil Spill Response Account: \$1.1 million • State Toxics Control Account: \$93.6 million • Coastal Protection Fund: \$99,000 	<p>FY2012¹²</p> <p>The Spill Prevention, Preparedness and Response Program is primarily funded out of the State Toxic Controls Account.</p> <p>Program Expenses¹²</p> <ul style="list-style-type: none"> • Response: \$7.4 million (includes \$3.5 million from the OSRA) • Prevention: \$2.8 million • Preparedness: \$1.6 million • Natural Resources Damage Assessment: \$1.0 million (includes \$0.8 from the Coastal Protection fund) • Total: \$12.8 million • Administration: 69.4 FTE staff 	<p>FY2012</p> <p>Response Account: <\$8 million¹⁰</p> <p>The response account balance was \$9 million in FY2007.</p> <p>The OSRA was initially capped at \$25 million in 1991. The statutory limit has been reduced to \$9 million.¹³</p>	<p>The OSRA levy was reimposed in 2013 because the fund balance was less than \$8 million¹⁰</p> <p>In 2009 state gov't had to transfer \$6.5 million from the State General Fund and cut eight positions in the Spills Program to cover the program revenue shortfall.</p> <p>Capability to rescue and rehabilitate oiled wildlife is very limited.¹³</p>

¹⁰ Washington State Department of Revenue Special Notice. Dated Oct 11, 2012. Available at: http://dor.wa.gov/Docs/Pubs/SpecialNotices/2012/sn_12_OilSpillTaxReimposed.pdf

¹¹ Washington State Fiscal Information. Available at: <http://www.fiscal.wa.gov/Revenue.aspx>

¹² Washington State Spills Program Plan 2012-2013. Available at: [http://www.ecy.wa.gov/programs/spills/about_us/SPPR%202012-2013%20Program%20Plan%20\(final\).pdf](http://www.ecy.wa.gov/programs/spills/about_us/SPPR%202012-2013%20Program%20Plan%20(final).pdf)

¹³ Washington Spill Prevention, Preparedness & Response Program Overview 2007-09. Available at http://www.ecy.wa.gov/programs/spills/other/overbook_spills.pdf

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State of Oregon	Dept. of Environmental Quality Emergency Response and Preparedness program	<p>Marine Spill Prevention Fund¹⁴</p> <ul style="list-style-type: none"> • \$70/trip levy on cargo vessels • \$60-100/trip on tank barges • \$1200/trip by tank vessels • \$5900 annual fee applied to petroleum handling facilities • \$36/day fee for dredges <p>Hazardous Substance Remedial Action Fund</p> <ul style="list-style-type: none"> • \$30 per tonne fee on disposal of waste (with graduated reduction for large quantities to \$2.50/tonne for over 25,000 tonnes of waste) • Cost recovery • Interest on balance <p>Highway Spill Fund</p> <ul style="list-style-type: none"> • \$4.75 per load fee on petroleum withdrawn from a bulk petroleum facility • Cost recovery <p>EPA Core Grant</p>	<p>Marine Spill Prevention Fund</p> <ul style="list-style-type: none"> • prevention and response to oil spills in Oregon waterways (rivers) <p>Hazardous Substance Remedial Action Fund</p> <ul style="list-style-type: none"> • Investigation, management and remediation of contaminated sites <p>Drug Lab Forfeiture Fund</p> <ul style="list-style-type: none"> • Removal and disposal of chemicals and wastes associated with illegal drug manufacturing <p>Highway Spill Fund</p> <ul style="list-style-type: none"> • Highway-related petroleum spill response activities. 	<p>FY2012^{15, 16}</p> <p>Revenue by Source (approx.):</p> <ul style="list-style-type: none"> • Marine Spill Prevention Fund \$322,700 (26% of funding) • Hazardous Substance Remedial Action Fund: \$795,000 (64%) • Highway Spill Fund: \$62,000 (5%) • EPA Core Grant: \$62,000 (5%) 	<p>FY2007¹⁷</p> <p>Spill Management Program*</p> <ul style="list-style-type: none"> • Annual budget \$1.24 million • Actual expenditures \$1.187 million • 4-5 FTE dedicated to emergency response • 3 additional staff provide back-up and advice • 12 staff on call <p>Marine Spill Prevention Fund*</p> <ul style="list-style-type: none"> • 1FTE (to review contingency plans and coordinate drills and exercises) 	<p>FY2007</p> <p>Marine Spill Prevention Fund: \$2,700*</p> <p>Hazardous Substance Remedial Action Fund: \$3.440 million*</p> <p>Drug Lab Forfeiture Fund: \$51,000*</p> <p>Highway Spill Fund: \$100,400*</p>	<p>Marine Spill Prevention Fund fees were revised in 2007 and remain in effect.¹⁴</p> <p>Revenues have declined since 2007 and the DEQ is considering increasing fees in 2015.¹⁵</p> <p>Drug Lab Forfeiture Fund, Highway Spill Fund, Marine Spill Prevention Fund are dedicated funds and can only be spent on specific activities defined in Oregon Revised Statutes.</p>

¹⁴ Oregon Marine Oil Spill Prevention Factsheet. Available at: <http://www.deq.state.or.us/lq/pubs/factsheets/cu/MarineOilSpillPrevention.pdf>

Jurisdiction	Fund / Program	Funding Mechanisms	Purpose	Annual Revenues	Annual Expenses	Fund Balance	Notes
State of California	California Office of Spill Prevention and Response (OSPR) <ul style="list-style-type: none"> Enforcement Program Inland Spills Program Oiled Wildlife Care Network (OWCN) Natural Resource Damage Assessment Unit Scientific Study and Evaluation Program 	<p>Oil Spill Response Trust Fund</p> <ul style="list-style-type: none"> \$0.25 per barrel levy on imported/exported oil¹⁸ <p>Oil Spill Prevention and Administration Fund</p> <ul style="list-style-type: none"> \$0.065 per barrel levy on oil received at CA marine terminals¹⁹ fee (\$650 to \$3,250) from non-tank vessels Cost Recovery Civil Penalties Fines and Settlements <p>The OSPAF fee increased in 2012 from \$0.05 per barrel to \$0.065 per barrel. The increase is effective until 2015, when it reverts back to \$0.05 per barrel.</p> <p>Non-tank vessel fees also increase in 2012 from \$500-2500.</p>	<p>Oil Spill Response Trust Fund is available for response, abatement, containment and rehabilitation from Oil spill where responsible party is unknown or unwilling to pay, and costs are ineligible under the Federal program.</p> <p>Oil Spill Prevention and Administration Fund supports administration and activities of the OSPR, primary spill prevention and preparedness activities.</p>	<p>FY2012²⁰</p> <p>Oil Spill Response Trust Fund:</p> <ul style="list-style-type: none"> Levy not in effect Interest accrued is credited to the OWCN <p>Oil Spill Prevention and Administration²⁰ Fund: \$38.6 million</p>	<p>FY2012²⁰ (Estimated)</p> <p>Office of Spill Prevention and Response</p> <ul style="list-style-type: none"> Fund Expenditure: \$29.8 million 254.3 FTE 	<p>FY2012²⁰</p> <p>Oil Spill Response Trust Fund:</p> <ul style="list-style-type: none"> \$12.4 million <p>Oil Spill Prevention and Administration Fund:</p> <ul style="list-style-type: none"> \$11.6 million <p>In FY2007, the Oil Spill Response Trust Fund balance was reported at \$58 million and the Prevention and Administration fund at \$17.7 million.²¹</p>	<p>The OSRTF Levy applies when the balance of the trust fund is less than 95% of the statutory target balance (\$50 million).</p> <p>The California State Board of Equalization reports the balance at \$50 million as of June 30, 2011. As the fund is at maximum, no fees are currently collected)</p> <p>However, the OSRTF balance is reported at \$12.4 million in Governor's Budget. We have not determined why there is a discrepancy here.</p>

¹⁵ Oregon Oil Spill Planning Annual Report. November 2012. Available at: <http://www.deq.state.or.us/lq/pubs/docs/cu/OilSpillPlanningAnnualReport.pdf>

¹⁶ Oregon DEQ Emergency Response Program Fact Sheet. Available at: <http://www.deq.state.or.us/lq/pubs/factsheets/cu/EmergenyResponseProgram.pdf>

¹⁷ Jeff Christensen, Personal Communication in 2007

¹⁸ California State Board of Equalization. Oil Spill Response Fee - As of June 30, 2011. Available at: http://www.boe.ca.gov/info/fact_sheets/oil_spill_response_fee.htm

¹⁹ California State Auditor. Oil Spill Prevention and Administration Fund. August 2012 Report 2011-123. Available at: <http://www.bsa.ca.gov/pdfs/reports/2011-123.pdf>

²⁰ State of California, Fund Condition Statement 3600. Available at: <http://www.ebudget.ca.gov/pdf/GovernorsBudget/3000/3600FCS.pdf>

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State of Hawaii	Environmental Response Revolving Fund (ERRF)	<p>Environmental response tax</p> <ul style="list-style-type: none"> • \$0.05 per barrel levy on petroleum products sold in the state²² <p>Fines and penalties for environmental violations</p> <p>Registration fees for facilities producing & storing hazardous materials</p> <ul style="list-style-type: none"> • \$100 annual fee <p>Investment Interest</p> <p>Grants</p> <p>Legislative appropriations</p> <p>Costs recovered from response actions</p>	<p>ERRF provides response capability, personnel, and equipment for the prevention, preparedness, and response to hazardous substance releases, or risks of releases</p> <p>ERRF funds support a variety of other activities including oil spill planning, education, research, and training; a used oil-recycling programs; and a number of environmental protection and natural resource protection programs</p>	<p>FY2011²²</p> <p>Environmental Response Tax \$1.4 million</p> <p>Violations: \$1.7 million</p> <p>Fees: \$98,075</p> <p>Other: \$41,172</p> <p>Total Revenue: \$3.2 million</p>	<p>FY2011²²</p> <p>Hazardous Evaluation and Emergency Response Office</p> <ul style="list-style-type: none"> • \$2.1 million (allotted) <p>Environmental Management Division:</p> <ul style="list-style-type: none"> • \$1.5 million (allotted) <p>The ERRF supports 39 FTE positions in HEER, EMD, Clean Water Branch, Safe Drinking Water Branch, and Solid and Hazardous Waste Branch</p> <p>Actual ERRF Expenditure: \$2.8 million of \$3.6 allotted.</p>	<p>FY2008</p> <p>Approximately \$7 million*</p>	<p>Statutory limit is \$20 million at which point the levy is suspended until the fund drops below \$3 million.</p> <p>Each year a portion of the program allotment is held in reserve for use towards a major chemical and/or terrorist related emergency response action</p>

²¹ The Office of Spill Prevention and Response: Funding and Responsibilities. http://www.lao.ca.gov/handouts/resources/2007/OSPR_111907.pdf

²² Report to the Twenty-fifth Legislature State of Hawai'i. Environmental Response and Hawai'i Emergency Planning and Community Right to Know. FY 2011. Dec 2011. Available at: <http://co.doh.hawaii.gov/sites/LegRpt/2012/Reports/1/128D%20and%20128E%20Report%20to%20the%202012%20Legislature.pdf>

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Canada	Ship-source Oil Pollution Fund (SSOPF)	Transfers from legacy funds \$0.06 per barrel levy on contributing oil imported into, or shipped from a place in Canada, in bulk as cargo on a ship Interest credited on account Cost recovery	SSOPF pays claims for costs and expenses incurred through the prevention, response, recovery and remediation of oil pollution damage Covers claims where funding available from the International Civil Liability for Oil Pollution Damage Fund (1969 CLC) and the (International Fund for Compensation for Oil Pollution Damage are insufficient or ineligible (i.e., mystery spills, non-persistent oil, inland spills)	FY2012 ²³ Interest: \$6.7 million Costs recovered: \$35,066	FY2012 ²³ Claims: \$652,635 Administration/Overhead: \$1.3 million Contributions to IOPC: \$1.4 million	FY2012 ²³ \$395.8 million In FY2006, the SSOPF balance was reported at \$350.8 million.	No levy has been charged since 1976. Re-imposition of the Levy is at the discretion of the Minister of Transport.

²³ Ship-source Oil Pollution Fund. Financial Statements. March 31, 2012. Available at: <http://www.ssopfund.gc.ca/documents/FinancialStatements2012-e.pdf>

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Canada/ Ontario	Bill 133 - Community Environment Fund	<p>Cost Recovery</p> <ul style="list-style-type: none"> • Cost recovery incurred by Province or municipalities in responding to a spill. • Municipalities have the authority to issue orders (rather than through court action) <p>Environmental Penalties</p> <ul style="list-style-type: none"> • up to \$100,000 per day for companies responsible for spills. <p>Fines</p> <ul style="list-style-type: none"> • Court assessed. 	<p>All monies recovery through penalties, fines and settlements are deposited in the Community Environment Fund</p> <p>Funds are made available to communities to support environmental remediation and restoration projects and other related activities that address damage caused by spills and pollution</p>	Not available	<p>FY2009 Disbursements: \$50,700</p> <p>FY2010 Disbursements: \$56,525</p>	Not available	In FY2007 no penalties had been assessed and the fund was empty ^{24*}

²⁴ John Steele, Ontario Ministry of Environment.. Personal communication.

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Norway	Norwegian Coastal Administration - Department for Emergency Response	<p>Pilotage service fees²⁵</p> <p>A safety fee covers the operating costs for four of these Vessel Traffic Centres.</p> <p>The safety fee can be paid annually or is charged for each call to port.</p> <p>Annual Safety Fees</p> <ul style="list-style-type: none"> • Oslo \$3.87/GT • Rogaland \$2.43 /GT • Karsto: \$9.72/GT <p>E.g., 128,396 GT oil tanker call to Mongstad port will be charged \$54,510</p>	Responsible for government preparedness against pollution, and ensuring preparedness proportionate to risk. Identifies acute pollution, and ensures responsible party or local municipalities implement necessary response measures.	FY2013 Safety Fees: \$13.4 million	Not available	Not available	The NCA has established 27 oil spill response depots along the Norwegian coastline.

²⁵ Norwegian Coastal Administration Website. available at <http://www.kystverket.no/en/>

Jurisdiction	Fund / Program	Funding Mechanisms	Purpose	Annual Revenues	Annual Expenses	Fund Balance	Notes
Australia	National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) <ul style="list-style-type: none"> • Safety • Structural Integrity • Environmental Management 	<p>Combination of Cost Recovery and Levies²⁶.</p> <p>Safety Case Levies (a Safety Management System amount, a pipeline amount, a safety investigation levy)</p> <p>Well Integrity Levy consists of an annual levy (\$2600/well), an operations management plan, well activity applications, and an investigation levy.</p> <p>Environment Plan Levy calculated based on the number of petroleum activities, an activity risk rating, and a compliance rating, duration of the activity. The unit value is set at \$3000²⁶.</p>	<p>Independent and professional regulation of offshore petroleum industry safety, well integrity and environmental management.</p> <p>Relies on industry developed management systems (safety, environmental) and response plans.</p> <p>Levies are applied based on numbers of activities, activity risk, organizational compliance.</p>	<p>Est. FY2012²⁶</p> <p>OHS: \$15.1 million AUD</p> <p>Structural Integrity: \$4.6 million AUD</p> <p>Environmental Management: \$7.5 million AUD</p>	<p>Est. FY2012²⁶</p> <p>OHS: \$15.5 million AUD</p> <p>Structural Integrity: \$4.1 million AUD</p> <p>Environmental Management: \$7.0 million AUD</p>	<p>Est. balance FY2012²⁶</p> <p>OHS: (\$419,000 AUD)</p> <p>Structural Integrity: \$476,000 AUD</p> <p>Environmental Management: \$443,000 AUD</p>	

*Current information is not available

²⁶ National Offshore Petroleum Safety Authority. Agency resources and planned performance. 2011 Available at: <http://www.nopsema.gov.au/assets/publications/Cost-Recovery-Impact-Statement-1-July-2012-to-30-June-2014-A227203.pdf>

Norway

In Norway, Municipal government and local authorities maintain preparedness and respond to minor spills within the municipality. This includes incidents not covered by private preparedness plans, or where the polluter is unknown or unable to respond. At the Municipal level, spill response equipment is owned and operated by fire brigades or by the local port authorities. Land-based industries, including refineries and coastal tank facilities are required by the Norwegian Climate and Pollution Agency to maintain response capabilities and preparedness plans. Oil companies operating offshore have preparedness requirements that follow health, safety and environmental regulations for petroleum related activities, and the individual companies are responsible for preparedness and response. All operating companies are members of NOFO (Norwegian Clean Seas Organisation), the industry response organization. NOFO maintains equipment and staff available at strategic locations to be used during response to a spill incident. The Norwegian Coastal Authority is responsible for government prevention and preparedness initiatives and has nation-wide administrative authority in cases of acute pollution incidents. The Norwegian Coastal Authority has authority to issue orders, supervise response incidents, and coordinates private, municipal and government emergency response. It also coordinates and trains private, municipal and government resources for preparedness and acquires and maintains response equipment deployed at strategic locations. The Norwegian Coastal Authority also ensures action is taken by the responsible party.

Australia

Australia's National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) was established in 2012. NOPSEMA superseded the National Offshore Petroleum Safety Authority (NOPSA), which was established to regulate health and safety of workers on offshore facilities. NOPSA was established in 2005 following a review which recommended, among other things, a consistent regulatory approach for industry across all jurisdictions. Following a review of the 2009 Montara oil spill incident off the northern coast of Western Australia, Australia moved to consolidate health and safety and environmental management, with well integrity, and the structural integrity of all facilities of all offshore petroleum facilities located in its waters. This amalgamation was intended to standardize the regulation of Australia's offshore petroleum industry and reduce regulatory burden on industry.

NOPSEMA's environmental management functions include: (1) assessment of environmental plans (EP), oil spill contingency plans, and (2) monitoring compliance with EPs, inspections, investigation of incidents and enforcement. The regulatory system relies on development and compliance with management systems and management plans. NOPSEMA is funded by cost recovery which includes a system of levies. Periodic reviews of the cost recovery framework are conducted by the government, which includes industry consultation. Levies are applied for reviews of new applications and ongoing compliance with management systems. Levy amounts vary and are calculated based on a number of factors including activity risk, company compliance ratings etc. Levies are applied for review and assessment of safety management systems, investigations, annual well levies (\$2600 per well site), review of well operations management plan, review and approval of new well activity, review of environment management plans and review for ongoing annual compliance.

Industry Supported Response Organizations

Table 1. Summary of the industry supported response organizations existing in Washington, Alaska and Western Canada. (Figures are provided in local currency, unless otherwise specified).

Jurisdiction	Response Organization	Funding Source	Purpose	Annual Revenues	Annual Expenses	Personnel	Notes
Western Canada – BC/ Yukon	Western Canada Marine Response Corporation (WCMRC; includes Burrard Clean	Annual Registration fee ²⁷ : \$620.00 per vessel or facility Subscriber fee: \$670 per vessel or facility Bulk Oil Cargo Fee: \$0.09 per barrel (\$0.67 per tonne) of bulk oil loaded or unloaded within geographic area of response. Capital Asset/ Loan Fee: \$0.071/tonne	WCMRC created to provide oil spill response capability in BC's navigable waters Founding Member and sponsor of Oiled Wildlife Society of BC	Actual FY2011 ²⁸ Bulk Oil Levy: \$2.6 million Registration fees: \$1.2 million Other Revenue (sale of sorbents, spill revenue, interest, training activities, and deferred revenue): \$1.7 million Total: \$5.5 million Capital Asset/ Loan Fee: \$0.3 million	FY2011 ²⁸ Corporate: \$1.0 million Business Support: \$0.8 million Operations: \$2.4 million Training: \$0.2 million Land-based operations: \$18,780 Other Expenses: \$0.8 million Total: \$5.2 million	Volunteer board of directors President/general manager (part time position) 22 full time staff positions 8 part time positions Response network of marine contractors and fishers Fisherman Oil Spill Emergency Team	WCMRC and ECRC have been engaged by the Canadian Fuels Association to set up the Land Spill Emergency Preparedness Program
Western Canada	Western Canadian Spill Services Ltd. (WCSS) ²⁹	Membership fees were \$315 in 2008* Site fees based on capacity of each company (i.e, number of wells, and length of pipeline)	Voluntary spill preparedness organization of the upstream petroleum industry in N.E. British Columbia, Alberta, and Saskatchewan Provides access to oil spill contingency plans, initial spill response equipment and access to regional and specialty spill response	FY 2006 Fees: \$1.6 million All fees collected are re-invested in either training or capital asset purchases.*	Fixed annual administration budget (undisclosed amount).	No employees. Administered by Enform through a management agreement with the WCSS (3.3 FTE in 2008). Contractors provide maintenance duties on spill response equipment at various response centers within WCSS boundaries.	Volunteer Board of Directors, Executive Sub-Committee and at the Oil Spill Cooperative level.

²⁷ Western Canada Marine Response Corporation. Fee Justification Document. Available at: <http://www.wcmrc.com/wp-content/uploads/2011/07/2013-Fee-Justification-Document.pdf>

²⁸ Western Canada Marine Response Corporation. Statement of Income. Available at: <http://www.wcmrc.com/wp-content/uploads/2011/07/Dec-2011-Income-Statement.pdf>

²⁹ www.wcss.ab.ca

Jurisdiction	Response Organization	Funding Source	Purpose	Annual Revenues	Annual Expenses	Personnel	Notes
			equipment.				
Canada – East of Rocky Mountains	Eastern Canada Response Corporation (ECRC)	Membership Fees <ul style="list-style-type: none"> • \$450 - \$750/year Bulk Oil Cargo Fees (FY2012) ³⁰ <ul style="list-style-type: none"> • Maritimes/Quebec: \$0.16 • Newfoundland: \$0.10/tonne • Great Lakes: \$0.48/tonne 	Headquartered in Ottawa and operates six response centres located in three regions: Great Lakes, Quebec and Atlantic Canada	FY2012 ³⁰ Maritimes/Quebec <ul style="list-style-type: none"> • Registration Fees: \$1.7 million • Bulk Oil Levy: \$4.0 million Newfoundland <ul style="list-style-type: none"> • Registration Fees: \$0.4 million • Bulk Oil Levy: \$2.4 million Great Lakes <ul style="list-style-type: none"> • Registration Fees: \$0.6 million • Bulk Oil Levy: \$1.3 million 	FY2012 Maritimes/Quebec: \$7.6 million Newfoundland: \$2.9 million Great Lakes: \$2.1 million	n/a	Includes the Land Spill Emergency Preparedness Program
Alaska – North Slope	Alaska Clean Seas ³¹	Membership fees Producing Members <ul style="list-style-type: none"> • New Member Initiation Fee is \$500,000 • Annual fee is \$50,000 Non-Producing Members <ul style="list-style-type: none"> • New Member Initiation Fee is \$100,000 • Annual fee is \$20,000 Daily development fees	Non-profit, incorporated oil spill response cooperative Members are entities that drill, explore, produce or transport oil or gas.	n/a	FY2008 ³² Labor and benefits: \$7 million*	85 full time employees	Currently 12 members. 115 qualified response personnel, supplied by operating companies under a mutual aid agreement available to participating member companies Equipment worth \$75,000,000, is owned by

³⁰ Eastern Canada Response Corp Ltd. Calculation of Bulk Oil Cargo Fee Rate (2012-2013). Available at: <http://www.ecrc.ca/en/pdf/notice/ecrc-fy11-bocf-20mar12.pdf>

³¹ <http://www.alaskacleanseas.org/wp-content/uploads/2010/12/2013-ACS-Yearbook-for-web.pdf>

³² Ron Morris (President and General Manager), Personal Communication

Jurisdiction	Response Organization	Funding Source	Purpose	Annual Revenues	Annual Expenses	Personnel	Notes
		<ul style="list-style-type: none"> Rig day fees for exploration \$2500/day General Activity Fee of \$625/day Daily Development Fee of \$1,250 during transition from non-producing to producing.					the member companies and ACS
Alaska - Anchorage	Alaska Chadux Corp.	Funded through industry members	Member-funded, not-for-profit oil spill response organization	n/a	Wages/payroll, taxes and benefits: approx. \$1 million in 2008*	12 employees	30 member companies
Alaska – Cook Inlet	Cook Inlet Spill Prevention & Response Inc	Funded through industry members	Oil spill response & contingency planning	n/a	Annual Budget: \$1.195 million in 2008*	21 full time employees	19 member companies
Alaska - Southeast Alaska (Dixon Entrance to Yakutat)	Southeast Alaska Petroleum Resource Organization	Funded through industry members	Non-profit corporation providing oil spill response resources to member companies	n/a	n/a	5 full time employees 9 response teams (5 people)	44 member companies. Wildlife Response Team
Washington - San Juan Islands	Islands' Oil Spill Association	Funded through donations and memberships only	Community-based, nonprofit organization providing first response for oil spills in the San Juan Islands, shoreline protection, wildlife rescue and training for containment and oiled wildlife responders	n/a	n/a	354 community volunteers 3 Staff and 14 Board of Directors	
Pacific States	Marine Spill Response Corporation/ Marine Preservation Association	Funded by member companies (petroleum exploration and production, refining and marketing, transportation and	Independent, non-profit, national spill response company	n/a	n/a	n/a	To become a customer of the MSRC (i.e., entitled to cite MSRC in response plans), a company

Jurisdiction	Response Organization	Funding Source	Purpose	Annual Revenues	Annual Expenses	Personnel	Notes
		shipping)					must first become a member of the Marine Preservation Association
Washington – Washington Waters (except Columbia and Snake Rivers)	Washington State Maritime Co-op	n/a	Non-profit corporation that provides oil spill contingency plan coverage and emergency response systems to vessels in Washington waters	n/a	n/a	n/a	
Norway	Norwegian Clean Seas Organization (NOFO)	30 member companies in NOFO	All companies operating on the Norwegian Continental Shelf are members of NOFO (Norwegian Clean Seas Organization). NOFO administers and maintains oil spill preparedness, provides vessels, equipment and technical staff at the afflicted companies' disposal.	n/a	FY2011 \$34.8 million (196,691 kNOK)	FY2011 22 employees and four contractors.	NOFO has 19 offshore oil spill response systems, each consisting of 2 vessels, 400m of oil booms and a large skimmer. .

*Current information is not available

Table A1. Existing legislation, funding mechanisms, and programs for spills involving the terrestrial production, storage and transportation of hydrocarbons and hazardous materials.

	Legislation	Funding mechanisms	Programs
Prevention and Preparedness	<p><i>Canadian Environmental Protection Act (CEPA)</i>³³</p> <ul style="list-style-type: none"> • Section 56 provides authority to establish requirements for pollution prevention plans; • Section 199 establishes requirements for environmental emergency plans; and • Section 201 establishes spill reporting requirements and also requires any person who owns or is in charge of a substance to take reasonable measures to prevent an environmental emergency and to cleanup a spill if one occurs. <p><i>Canada Oil and Gas Operations Act</i>³⁴</p> <ul style="list-style-type: none"> • Section 14 allows regulations to be made prescribing measures necessary to prevent pollution of air, land or water as a result of the exploration and drilling for, or the production, storage, transportation, distribution, etc of any oil or gas. <p>Emergency Program Act</p> <ul style="list-style-type: none"> • Section 4 (1) Emergency Program Act designates responsibility for provincial preparedness and response management for spills of oil and hazardous materials to the Ministry of Environment. • Section 6 of the Emergency Program Management Regulation assigns responsibility for coordinating government's response to spills. <p>BC Environmental Management Act (EMA)³⁵</p> <ul style="list-style-type: none"> • Sections 78 provides the minister with authority to require an environmental impact assessment • Section 79 and 81 enable the minister to implement measures to lessen the risk of a spill (e.g. spill contingency planning), and requires a polluter to report a spill. • Section 86 requires the preparation of an environmental management plan if an environmental protection order is declared under Section 85. • Section 89 enables the minister to request an area based management plan which would include disclosure of potential sources of pollution and 	<p><i>No consistent and dedicated funding mechanism existing in BC to support government activities related to prevention and preparedness.</i></p>	<p>Except where required by legislation, spill prevention and response planning, and ensuring response capacity exists should a spill occur, are voluntary for industrial operators transporting hazardous materials in terrestrial environments.</p> <p>BC Ministry of Environment's BC Inland Oil Spill Response Plan exists to provide response to a major oil spill affecting lands, wetlands, lakes, rivers and streams.</p> <p>Together with ECRC, Western Canada Marine Response Corporation (WCMRC) has set up the Land Spill Emergency Preparedness Program (LSEP) in conjunction with the Canadian Petroleum Products Institute. The LSEP establishes a network of qualified response contractors to respond to a land based incident. LSEP ensures adequate preparedness among responders and verifies/ qualifies response contractors. The program is extended to existing members. In BC, the LSEP's network of response contractors is located in Lower Mainland, North Saanich, Prince George, West Kelowna, Winlaw, and Mackenzie.</p> <p>Western Canadian Spill Services (WCSS)</p> <ul style="list-style-type: none"> • Provides prevention and preparedness capacity for the upstream oil and gas industry in Northeastern BC. • Available to member companies only

³³ Canadian Environmental Protection Act, 1999. Available at: http://www.ec.gc.ca/CEPARRegistry/the_act/

³⁴ Canada Oil and Gas Operations Act. 1985. Available at: <http://laws.justice.gc.ca/en/O-7/index.html>

³⁵ BC Environmental Management Act. Available at: http://www.qp.gov.bc.ca/statreg/stat/E/03053_00.htm

	Legislation	Funding mechanisms	Programs
	<p>management actions</p> <p>BC Transport of Dangerous Goods Act³⁶</p> <ul style="list-style-type: none"> • Section 5 specifies safety precautions by in place for the transport of dangerous goods. 		
Response and recovery	<p>CEPA</p> <ul style="list-style-type: none"> • Section 204 provides for the establishment of a national system for notification and reporting of environmental emergencies. • Section 205 establishes that the person who owns or is in charge of a spilled substance is liable for restoring any part of the environment damaged by the emergency and/or for costs and expenses incurred by a public body or agency for measures taken to prevent and cleanup the spill. <p>Canada Oil and Gas Operation Act</p> <ul style="list-style-type: none"> • Section 25 prohibits a person from causing or permitting a spill and establishes a duty to report any spills that do occur and reasonable measures must be taken to respond to the spill and protect the environment. • Section 25 enables anyone other than the spiller to recover costs associated with responding to the spill. <p>BC EMA</p> <ul style="list-style-type: none"> • Section 80 specifies spill response actions. • Section 87 allows Spill Response Plans to be invoked where the minister considers that an environmental emergency exists and immediate action is necessary. <p>BC Pipeline Act</p> <ul style="list-style-type: none"> • Section 39 specifies measures to contain or eliminate pipeline spills. • Section 39(4) requires person or company to pay for expenses or costs incurred in containing and eliminating spills. 	<p>Emergency Management BC has authority to provide funding for direct provincial spill response actions.</p> <p>BC does not have an industry funded spill response fund.</p> <p>Cost Recovery</p> <ul style="list-style-type: none"> • Section 203 of the CEPA provides for the recovery of costs and expenses incurred by government during cleanup or environmental remediation. • The Spill Cost Recovery Regulation of the BC EMA³⁷ determines the extent of liability the responsible party will assume for a release. <p>Fees</p> <ul style="list-style-type: none"> • Section 35 of the BC Pipeline Act gives the Minister powers to apply an annual fee for inspection or carrying out provisions in the Act. • The Permit Fees Regulation of the BC EMA establishes fees for permits for discharges of contaminants into the environment. <p>Penalties</p> <ul style="list-style-type: none"> • Section 120 of the BC EMA specifies penalties of up to \$300,000 for failure to comply with the requirements of the permit. <p>Fines</p> <ul style="list-style-type: none"> • Section 120 of the BC EMA 	<p>BC Sustainable Environment Fund. Section 4 of the BC Sustainable Environment Fund Act³⁸ specifies that all funds derived from fees, permits and approvals under the EMA are deposited into the fund. Includes support for responding to high-risk environmental emergencies.</p> <ul style="list-style-type: none"> • FY2013 estimated revenue \$19.5 million³⁹ • FY2013 estimated expenses \$18.9 million <p>Western Canada Marine Response Corporation (WCMRC) has established the Land Spill Emergency Preparedness Program (LSEP). Verified response contractors are available to respond to an environmental emergency. Members receive a 50% discount on contractor rates.</p> <p>WCSS provides response capability (equipment) to member companies in NE BC, but does not respond directly to a spill.</p> <p>CEDA Emergency Response Team (CERT)</p> <ul style="list-style-type: none"> • Contractor with major response centres in Edmonton, Alberta and Vancouver, Canada. • CERT responds to road, air, rail, marine and industrial emergencies involving hazardous material and hydrocarbon spills.

³⁶ BC Transport of Dangerous Goods Act. Available at: http://www.qp.gov.bc.ca/statreg/stat/T/96458_01.htm

³⁷ BC Environmental Management Act. Spill Cost Recovery Regulation. Available at: http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/250_98.htm

³⁸ BC Sustainable Environment Fund Act. Available at: http://www.qp.gov.bc.ca/statreg/stat/S/96445_01.htm#section4

³⁹ BC Ministry of Environment. 2013 Budget. Available at: http://www.bcbudget.gov.bc.ca/2013/estimates/2013_Estimates.pdf

Legislation	Funding mechanisms	Programs
	<p>specifies fines of up to \$1 million for offence under the Act.</p> <ul style="list-style-type: none"> • Offences under the BC Pipeline Act are subject to a \$1000 fine. • Offences under the of the BC Transport of Dangerous Goods Act are subject to fines of up to \$100,000 (Section 16). 	
<p>Remediation</p> <p>BC EMA</p> <ul style="list-style-type: none"> • Part 4 of the EMA includes legislation for contaminated site remediation • Section 45 establishes the responsible party liable for costs associated with remediation of a contaminated site. • Section 48 allows a director to issue a remediation order to a responsible person to carry out or contribute to costs associated with remediation. <p><i>No legislation establishes liability for longer-term recovery or restoration of natural resources damaged or destroyed by a hazardous material or oil release⁴⁰.</i></p>	<p>Fees</p> <ul style="list-style-type: none"> • BC EMA Contaminated Sites Regulation⁴¹ enables fees charged for registration with a Contaminated Site Registry and requires evidence of financial security as a condition of a certificate. • In FY 2007 \$605,529 was generated from site registration fees for the Sustainable Environment Fund.* <p>Levies</p> <ul style="list-style-type: none"> • Oil and Gas Commission Levy and Orphan Site Reclamation Fund Tax Regulation⁴² requires producers to pay a levy on production of petroleum (\$0.94 per m³) and natural gas (\$0.47 per 1000 m³).* <p>*Current information not available</p>	<p>BC Sustainable Environment Fund</p> <ul style="list-style-type: none"> • Supports contaminated site clean-up. <p>Orphan Site Reclamation Fund</p> <ul style="list-style-type: none"> • Pays costs for reclamation of orphaned wells, pipelines or facilities. <p>BC MoE Land Remediation Section</p> <ul style="list-style-type: none"> • Investigates and remediates contaminated sites in BC. • Maintains a site registry and site screening process. • Operating budget for FY 2007 was \$2.55 million. \$1.62 million allocated to staff salaries and administration.* <p>Environment Canada's (EC) Federal contaminated Sites Program</p> <ul style="list-style-type: none"> • Funds clean-up and remediate contaminated sites within federal jurisdiction. • \$3.5 billion in long-term funding provided in the 2004 budget.* <p>EC's Environmental Damages Fund</p> <ul style="list-style-type: none"> • Funded by settlements and fines assessed under federal environmental law. • Used for community-level environmental restoration projects in spill affected areas. <p>*Current information not available</p>

⁴⁰ Braul. 2006. British Columbia's Environmental Emergency measures: review and recommendations. Report prepared for Ministry of Environment, British Columbia. Pp 174

⁴¹ BC Environmental Management Act. Contaminated Sites Regulation. Available at; http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/EnvMgmt375_96/375_96_00.htm

⁴² Oil and Gas Commission Levy and Orphan Site Reclamation Fund Tax Regulation. Available at: http://www.qp.gov.bc.ca/statreg/reg/O/OilGas/363_98.htm

