

SCEK Report



Fiscal Year
2011/12

The Science and Community Environmental Knowledge (SCEK) Fund is an industry-sponsored fund overseen by the Canadian Association of Petroleum Producers (CAPP), the Small Explorers and Producers Association of Canada (SEPAC) and the BC Oil and Gas Commission (Commission).

The SCEK Fund is administered by the Commission.

Vision

To continuously improve understanding and management of the impacts of oil and gas activities in B.C.

Mission

The SCEK Fund supports practical studies that develop credible and relevant information to address knowledge gaps in the understanding and management of high priority environmental and social matters related to oil and gas exploration and development in B.C.

Research findings from funded projects are shared with organizations in the oil and gas industry as well as regulators and government agencies, other stakeholders and First Nations.

SCEK Report

This report documents the SCEK Fund's operational and financial achievements for the 2011/12 fiscal year (April 1, 2011 to March 31, 2012) along with an overview of plans for the 2012/13 fiscal year.

Contact Us

For further information, please contact the SCEK Fund,
Suite 300, 398 Harbour Road, Victoria, B.C. V9A 0B7.

www.scek.ca

Message from the SCEK Steering Committee

This year the SCEK Fund has made great strides in addressing strategic priorities of the oil and gas industry. Highlights of the past year include:

- Resumption of the levies and fees that enabled the creation of a new funding envelope focused on caribou research;
- Investment to inform science-based management on key policy priorities such as caribou and water;
- Continued improvement of administrative and decision-making processes to further our objectives while remaining nimble to respond to opportunities as they arise; and
- Expansion in the breadth of partners with whom we work to leverage our investments to enhance project outcomes and extension.

Low commodity prices continue to challenge the natural gas industry in British Columbia. Meanwhile, public expectations to manage potential environmental and social impacts of oil and gas activities continue to rise.

Our steering committee includes representatives of both government and industry so we understand the strategic challenges facing the industry. The SCEK Fund is well positioned to respond to this growing need through funding and sharing the results of vital research projects in order to inform the policy debate.

We look forward to an exciting year ahead. We will continue to enhance our research investments with funds from other sources, focus our research on important and emerging public policy topics and ensure we extend new knowledge to the government, oil and gas industry and the people of British Columbia in order to improve understanding and management of the impacts of oil and gas activities in B.C

Sherry Sian
Chair, SCEK Steering Committee
October, 2012

1. Report on the SCEK Fund (FY 2011/12)

Introduction

The SCEK Fund is a professional research fund that focuses on researching the impacts of upstream oil and gas activities in B.C. Key principles of flexibility, responsiveness and transparent operations help distinguish the SCEK Fund and attract quality research projects that address significant and timely issues and knowledge gaps.

...a 6th funding envelope was added to focus on caribou research...

In 2011/12, an sixth funding envelope was added focusing specifically on caribou research.

More information on the SCEK Fund including the terms of reference and business plan can be found on the SCEK website at: www.scek.ca.

Funding Area (Envelope)	# of Active Projects (FY 11/12)	# of Projects To-Date*	Investment To-date (millions)*
Caribou	2	2	\$0.4K
Environmental Impacts	6	33	\$2.7
Cumulative Impacts	—	15	\$1.1
Health and Safety	—	8	\$1.1
Traditional Knowledge	—	8	\$1.0
Collaboration & Communication	4	11	\$0.3
	12	77	\$6.6

* SCEK Fund started in late 1998. The Caribou envelop was added in 2011/12.



Images from SCEK Funded projects:

- Stone's Sheep (left)
- Boreal Caribou (above)

Accomplishments (FY 2011/12)

Proposal and Project Activity

Activity	Volume (FY 2011/12)
Active projects	12
Projects completed	4
Projects started	4
Proposals received	12
Proposals accepted	5
Proposals declined or withdrawn	6
Proposals under review	1

Proposal and project activity for the 2011/12 fiscal year is summarized in the illustration on the left.

Projects accepted for support by the SCEK Fund represented a diversity of subject areas and a cross-section amongst the funding envelopes.

A description of the active projects can be found in Appendix 1 of this report.

Extension Activity

Extension activities undertaken this year to raise awareness about SCEK-funded research projects are summarized below.

Final reports describe the results and explain the findings of the research for the effective management of impacts of oil and gas activity. These reports—prepared by the project team—are typically posted on the SCEK Fund’s website for distribution.

Presentations encourage discussion about a project’s findings and potential applications. Presentations are delivered by the project team to stakeholders. In FY 2011/12, four project presentations were made to the SCEK Steering Committee and invited guests while two other presentations were made at environmental themed conferences.

Project summaries in print, TV and other media such as newspaper articles, press releases and project profiles broadly raise awareness about projects funded by the SCEK Fund in

Extension Activity (FY 2011/12)	Project Team	SCEK Fund
Final reports	✓	
Presentations to SCEK and invited guests	✓	
Project summaries in print, TV and other media	✓	✓
Website updates		✓
Other extension activities	✓	✓

communities where we operate. In FY 2011/12, the SCEK Fund and its extension partners published five articles summarizing project findings.

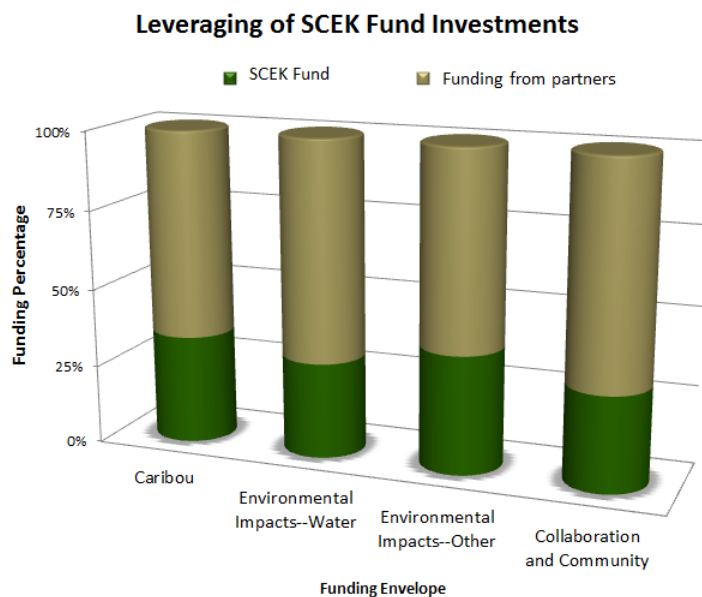
Website updates on the SCEK website continue to be a cornerstone of the SCEK Fund's extension and information dissemination activities. The website provides information on research projects and the corresponding deliverables along with other SCEK Fund information such as funding priorities, forms and guidelines.

Other extension activities include recognition awards and use of project deliverables. Two SCEK funded projects were nominated for industry association recognition events with one of these projects receiving an award for collaborative research. Deliverables from one of our traditional knowledge projects was used in an oil and gas multi-media display in the BC Oil and Gas Commission's office in Dawson Creek.

Leveraging our Investments

An increasing number of SCEK's research projects involve collaboration with external subject matter experts, research and extension partners. This enables the SCEK Fund to leverage its investment in projects as well as share the management and extension activities with other organizations. This trend is expected to continue in future years as it enables the SCEK Fund to undertake a wider range of topical and important research projects with the same financial and personnel resources. The resulting extension activities are significantly enhanced through the combined resources of the participating organizations—leading to wider exposure and use of the research findings.

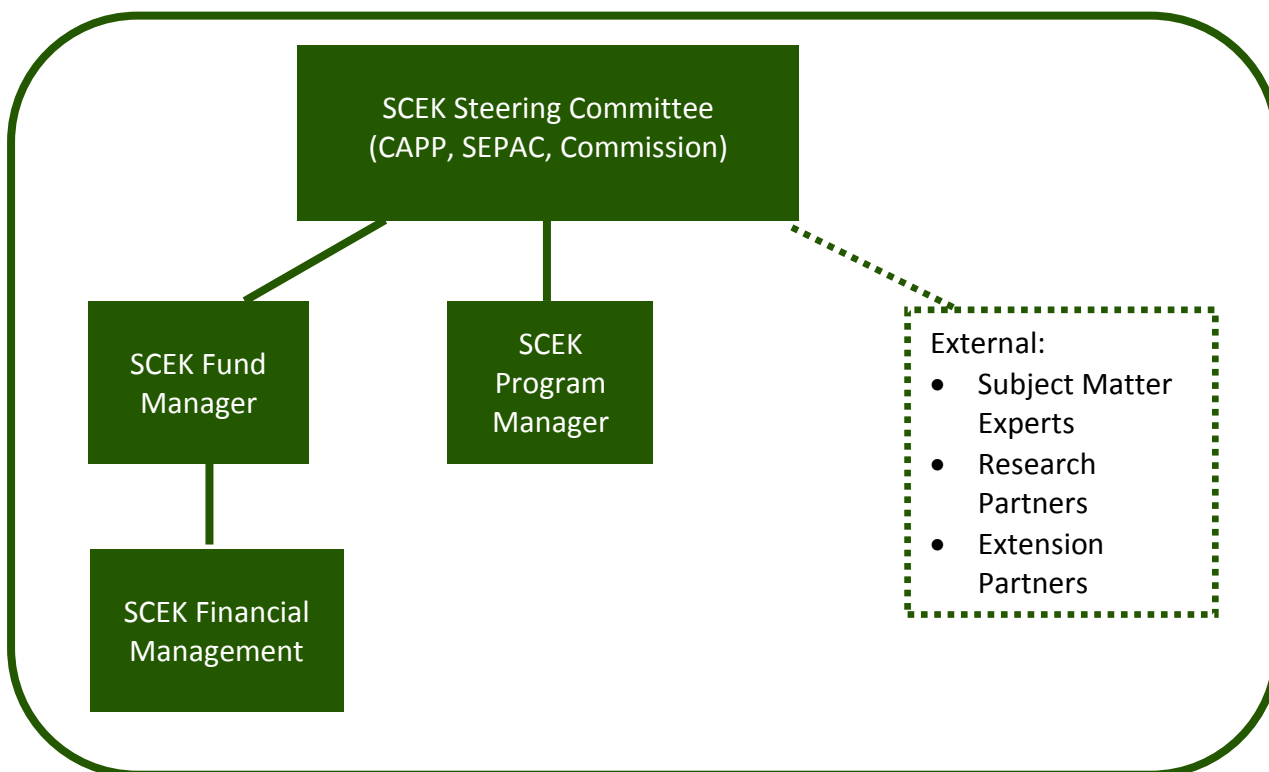
The illustration at the right summarizes the leverage of SCEK funding in 2011/12. The illustration shows the percentage of funding provided by the SCEK Fund and the percentage by our research partners. The SCEK Fund invested approximately one-quarter of the total value of research projects in which it participated in 2011/12.



**Leveraging of SCEK Funds in research projects undertaken in
FY 2011/12 (by Funding Envelope)**

Governance and Management

The SCEK Steering Committee is responsible for governance and management of the SCEK Fund. The SCEK Steering Committee is a three member committee containing representatives of the Canadian Association of Petroleum Producers (CAPP), Small Explorers and Producers Association of Canada (SEPAC) and the BC Oil and Gas Commission (Commission).



Administration of the SCEK Fund is the responsibility of the SCEK Fund Manager who oversees the financial and contractual matters. The SCEK Fund Manager is a Commission employee. A part-time SCEK Program Manager supports the SCEK Fund Manager and the SCEK Steering Committee in administrative matters.

SCEK Financial Management is undertaken by the Commission's Corporate Services Division. Financial and contract management processes along with tracking and reporting systems are provided by this group. Assistance with records management and technical support of the SCEK website are also provided by this group.

2. Financial Report (FY 2011/12)

Results of Operations

The SCEK Fund receives its investment funds from levies on production volumes and fees from well applications. These levies and fees were re-instated in January of 2011 in order to create a new funding envelope for caribou. The remaining envelopes are supported through drawing down the remaining funds in the investment pool.

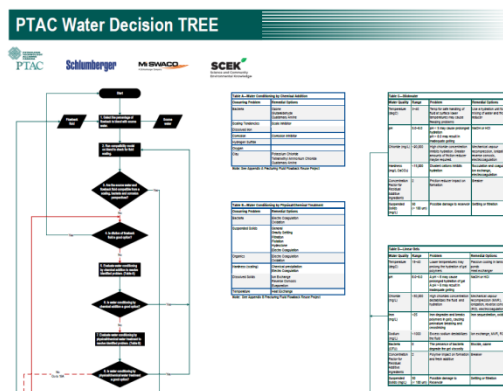
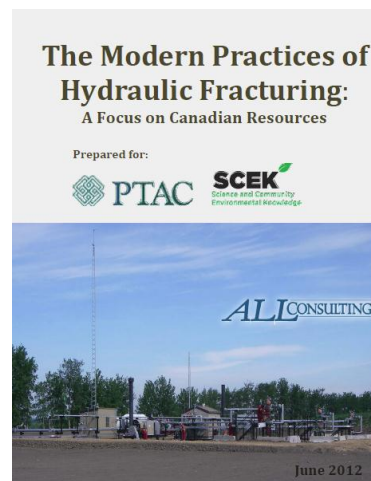
A summary of financial activity in FY 2011/12 is shown below. The activity is broken down by funding envelopes with the Operating column representing all the envelopes except the Caribou envelope. Copies of the SCEK Fund's audited financial statements are available upon request from scek@alantem.ca.

Statement of Operations and Net Assets (as at March 31, 2012)

	Operating Envelopes	Caribou Envelope	Total
Revenue			
Fees	—	\$ 54,400	\$ 54,400
Levies	—	\$784,901	\$784,901
Other	\$9,825	—	\$9,825
Sub-total	\$9,825	\$839,301	\$849,126
Expenses			
Project costs	\$261,292	\$100,266	\$361,558
Professional services	\$52,920	\$1,596	\$54,516
Management fees	\$40,370	\$3,630	\$44,000
Miscellaneous	\$1,898	—	\$1,898
Sub-total	\$356,480	\$105,492	\$461,972
(Deficiency) excess of revenue over expenses	(\$346,655)	\$733,809	\$387,154
Fund balance beginning of year	\$1,138,394	—	\$1,138,394
Fund balance end of year	\$791,739	\$733,809	\$1,525,548
Planned Commitments (12/13)	\$418,000	\$1,350,000	
Forecasted Commitments (post 12/13)	\$374,000	\$3,000,000	

Statement of Financial Position (as at March 31, 2012)

	Operating Envelopes	Boreal Envelope	Total
Assets			
Current assets			
Cash	\$892,372	\$141,630	\$1,034,002
Accounts receivable	\$765	\$597,405	\$598,165
Total	\$893,137	\$739,035	\$1,632,172
Liabilities and Net Assets			
Current liabilities			
Accounts payable	\$88,816	\$1,596	\$90,412
Holdbacks	\$5,212	—	\$5,212
Due to Commission	\$7,370	\$3,630	\$11,000
Sub-total	\$101,398	\$5,226	\$106,624
Fund Balances			
Operating	\$791,739		\$791,739
Caribou		\$733,809	\$733,809
Sub-total	\$791,739	\$733,809	\$1,525,548
Total	\$893,137	\$739,035	\$1,632,172

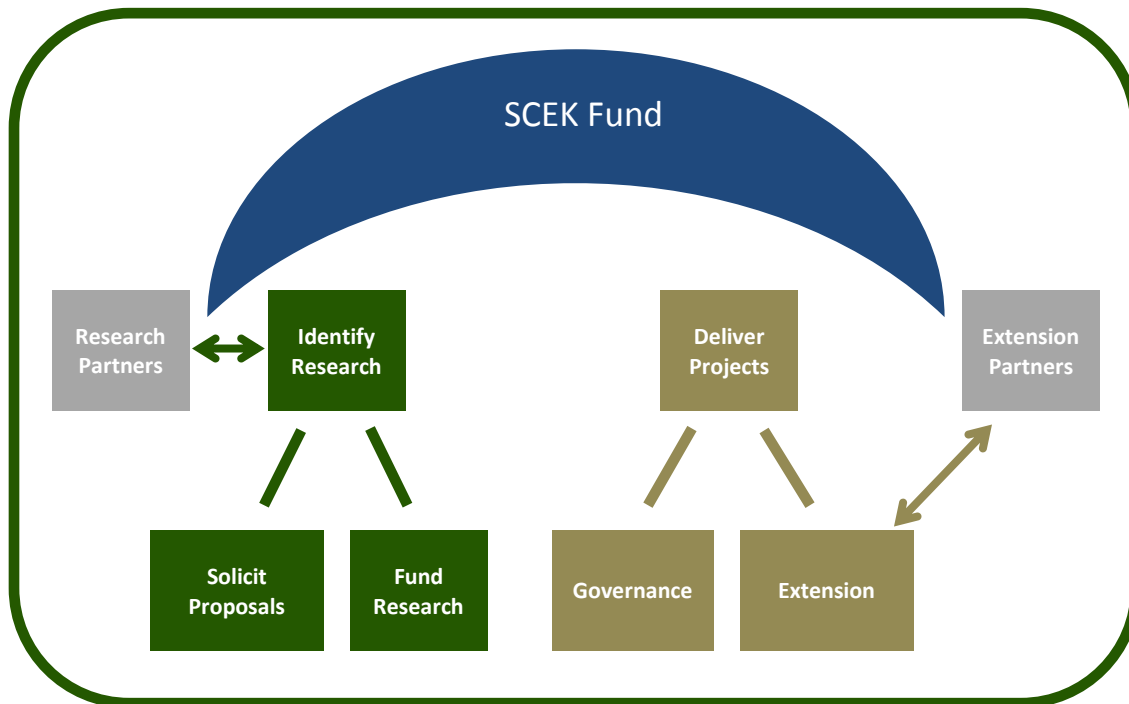


Deliverables from two SCEK Funded hydraulic fracturing research projects:

- An assessment of the risks of hydraulic fracturing (left)
- A decision tree for using water with high salinity in fracturing operations (above)

3. Going forward (FY 2012/13)

Vision



The SCEK Fund will support practical research projects, and extension activities, addressing knowledge gaps of interest and importance to the oil and gas sector through the following strategies and activities:

Identify research

The SCEK Fund will identify the research need, solicit proposals to address the need as well as fund the research projects. These activities may be shared with other research partners and will typically be contribution projects—where the SCEK Fund provides an agreed level of funds to a research project. In some cases, the SCEK Fund may undertake “managed” projects where the SCEK Fund takes a management role in the research project in addition to providing funding.

Deliver projects

The SCEK Fund will deliver projects through a governance structure of processes and tools tailored to the project’s investment level, research type and risk. Extension activities to communicate the findings and implications of the research will be planned and undertaken. Extension partners may be used to expand the reach of extension activities and/or leverage resources.

Priorities (FY 2012/13)

Priorities for the SCEK Fund in FY 2012/13 include the following:

✓	Ensure good governance of the SCEK Fund	Providing oversight of projects and ensuring all projects use and follow applicable processes, tools and policies while ensuring flexibility to respond to additional opportunities as they arise. Governance of individual projects will be undertaken applicable to the investment level, type of research and project specific risks.
✓	Secure longer term financing	Continuing to undertake projects and extension activities that demonstrate the value of the SCEK Fund to its stakeholders and position itself for longer term financing arrangements outside of the Caribou envelope.
✓	Ensure good use of the investment funds	Soliciting research proposals and making decisions on funding research consistent with the following SCEK Fund principles:
✓	<ul style="list-style-type: none"> • Targeting research 	<ul style="list-style-type: none"> • at known knowledge gaps that are important to our stakeholders such as undertaking projects to inform emerging public policy topics. Findings from research projects will help inform policy and regulatory discussions in government and best management practices in industry.
✓	<ul style="list-style-type: none"> • Leveraging our research funding 	<ul style="list-style-type: none"> • by including other stakeholders and research partners in our funding agreements and being flexible in our funding models.
✓	<ul style="list-style-type: none"> • Conducting extension activities 	<ul style="list-style-type: none"> • to ensure research findings and the application and implications of the research findings are easy to find and use by the target audiences.
✓	<ul style="list-style-type: none"> • Minimizing administrative expenses 	<ul style="list-style-type: none"> • through sharing administrative and overhead costs with research partners and structuring simple, yet flexible and appropriate funding agreements.

Research activities (FY 2012/13)

The table below illustrates the forecasted research funding, by funding envelope, over the next three years. The SCEK Fund will continue to fund a diversity of research projects while ensuring the projects focus on addressing knowledge gaps important to the oil and gas sector.

The funding priorities for FY 2012/13 include the following items:

- Supporting caribou research;
- Managing water;
- Understanding risks and finding solutions for hydraulic fracturing and seismicity;
- Quantifying emissions and developing techniques to manage air quality; and
- Enhancing Community Environmental Knowledge.

Forecasted research funding (FY 2012/13)

	2012/13*	2013/14*	2014/15*	Total*
Research Projects (Current and Forecasted)				
Current research projects (2011/12)	\$143	--	--	\$143
Forecasted Caribou projects	\$1,350	\$1,500	\$1,500	\$4,350
Forecasted Operating Fund projects	\$275	\$225	\$149	\$649
Total	\$1,768	\$1,725	\$1,649	\$5,142
Project expenditure (by funding envelope)				
Caribou	\$1,350	\$1,500	\$1,500	\$4,350
Operating Fund:				
- Environmental impacts	\$113	\$75	\$74	\$262
- Community Environmental Knowledge	\$25	\$25	\$0	\$50
- Health and Safety	\$200	\$75	\$75	\$350
- Cumulative Impact Management	--	--	--	\$0
- Collaboration and Communication	\$50	--	--	\$50
- Unallocated	\$30	\$50	--	\$80
Total	\$1,768	\$1,725	\$1,649	\$5,142

* Numbers in thousands.

APPENDIX 1: ACTIVE PROJECTS

The following projects, listed by funding area, were undertaken in FY 2011/12. More information on these projects can be found on the SCEK website at www.scek.ca or by contacting the SCEK Program Manager at scek@alantem.ca.

Caribou

Investment to-date: \$0.4 million

Focus	Supporting the Government of British Columbia's implementation plans for the ongoing management of caribou in BC through conducting research on caribou and their habitat.
Active projects (FY 2011/12)	<ul style="list-style-type: none"> Assessment of spatial factors affecting predation risk to boreal caribou calves. Year 2 of a 4 year project to inform policy and best management practices for protecting and managing boreal caribou and their habitat (<i>University of Alberta</i>).

Collaboration and Communication

Investment to-date: \$ 0.3 million

Focus	Improving collaboration and communication between industry, regulators and government agencies, other stakeholders and First Nations.
Active projects (FY 2011/12)	<p>Community knowledge and history Restoration of a cable rig derrick (<i>Fernie Derrick Society</i>).</p> <p>Public opinion survey Gather and analyze the public's understanding and opinions on oil and gas management and development in B.C. (<i>University of British Columbia</i>).</p> <p>Drilling Rig Apprenticeship Program Erect a drilling rig at Northern Lights College in Fort St. John as part of the establishment of a drilling rig apprenticeship program (<i>Northern Lights College, Shell Canada</i>).</p>

Cumulative Impacts Management

Investment to-date: \$1.1 million

Focus	Advancing the understanding and management of the cumulative impacts of oil and gas projects in the context of landscape level management.
Active projects (FY 2011/12)	No active projects in FY 2011/12.

Environmental Impacts

Investment to-date: \$2.7 million

Focus	Information and methods to avoid, minimize, or mitigate the impacts of oil and gas activities on terrestrial and aquatic ecosystems.
Active projects (FY 2011/12)	<p>Water</p> <ul style="list-style-type: none"> • Risks of Hydraulic Fracturing—assessment of the risks and identification of regulatory gaps and best management practices in hydraulic fracturing operations (<i>ALL Consulting</i>). • Re-use of Hydraulic Fracturing Fluids—development of a methodology for using water with high salinity in hydraulic fracturing operations (<i>Petroleum Technology Alliance Canada—M-I SWACO</i>). • Water Inventory—Inventory of surface water, sub-surface aquifers and water wells in the Montney basin of northeastern B.C. (<i>Geoscience BC</i>). <p>Other</p> <ul style="list-style-type: none"> • OGMA Assessment—identification of existing oil and gas tenures overlapping with Old Growth Management Areas (OGMAs) in northeastern BC and considerations for public policy when establishing and working in OGMAs (<i>EnCana Corporation</i>). • Stone's Sheep—determination of population and habitat status and potential risks from resource development (<i>Synergy Applied Ecology</i>). • Management Guidelines for Stone's Sheep—development of management guidelines and monitoring protocols for consideration in policy for resource development in Stone's Sheep habitat (<i>Chillborne Environmental</i>).

Health and Safety

Investment to-date: \$1.1 million

Focus	Advancing oil and gas practices related to human health and safety.
Active projects (FY 2011/12)	No active projects in FY 2011/12.

Traditional (Community Environmental) Knowledge

Investment to-date: \$1.0 million

Focus	Documenting, demonstrating and improving the application of community environmental knowledge to oil and gas planning, development and restoration activities.
Active projects (FY 2011/12)	No active projects in FY 2011/12.



Images from a SCEK funded project to restore a cable rig derrick in Fernie, BC



Science and Community
Environmental Knowledge

Contact Us

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