

SCEK Report



Fiscal Year
2012/13

The Science and Community Environmental Knowledge (SCEK) Fund is an industry-sponsored fund overseen by the BC Oil and Gas Commission (Commission), the Canadian Association of Petroleum Producers (CAPP), and the Explorers and Producers Association of Canada (EPAC). 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 2012/13 fiscal year (April 1, 2012 to March 31, 2013) along with an overview of plans for the 2013/14 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

Cover Photo: Horn River Basin (courtesy Richard Bader, BC Ministry of Natural Gas Development).

Message from the SCEK Steering Committee

The province of British Columbia is the holder of a world class natural gas resource. With aspirations of becoming a global leader in natural gas development and export, the SCEK Fund plays a critical enabling role to help the Government of British Columbia achieve this goal. The SCEK Fund supports science to understand potential impacts, to inform public policy, and to enable a standard of environmental performance that British Columbians expect.

This past year was an active one for the SCEK Fund in both our Caribou and Operating funds. The Caribou Fund gained significant momentum with several projects to document baseline conditions and undertake preliminary analysis about habitat use. Meanwhile, priorities under the Operating Fund have shifted to focus on larger, multi-year projects that address the strategic needs of the B.C. government.

The SCEK Fund Steering Committee continues to strengthen the SCEK brand by creating confidence in good governance, selecting important and relevant projects, and sharing the findings from this research to stakeholders best positioned to use this new information. We continue to review our governance and operating practices to ensure timely delivery on commitments to our major stakeholders. We continue to expand the depth and breadth of partners we work with to leverage our investments and expand value-added extension activities.

Important priorities for 2013/14 are to review our organizational structure to seize opportunities to better meet stakeholder's expectations. Fundamental to this change is expanding organizational capacity to respond to the needs of the oil and gas industry from an upstream to midstream to downstream perspective. We look forward to reporting on the results of our efforts to further enhance the strategic value of the SCEK Fund.

Sherry Sian
Chair, SCEK Fund Steering Committee
September, 2013

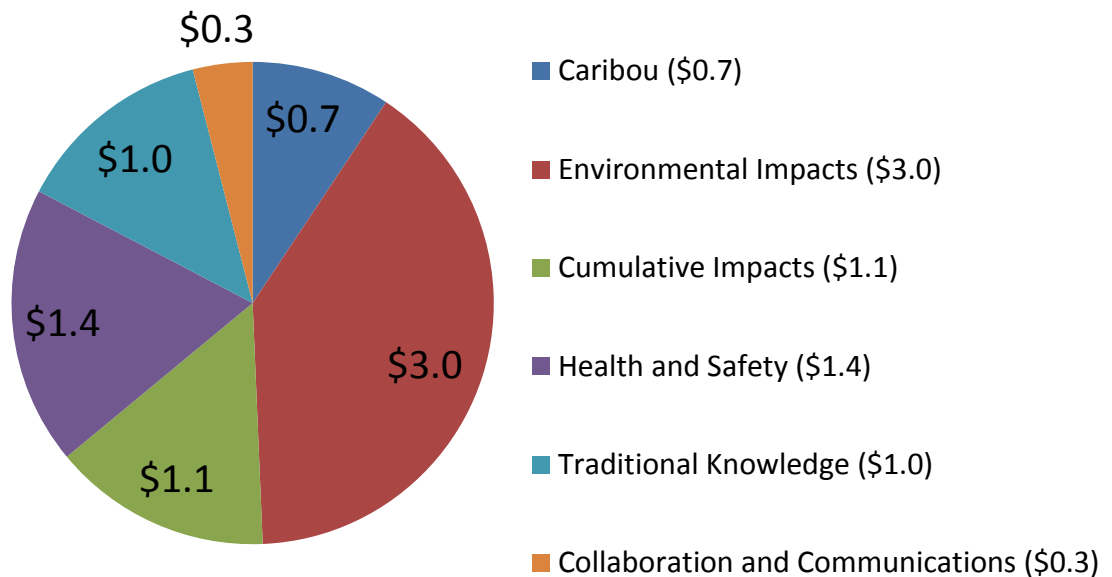
Report on the SCEK Fund (FY 2012/13)

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.

The charts below and following section summarizes the activity in the SCEK Fund. 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.

Investment To-date (Millions)



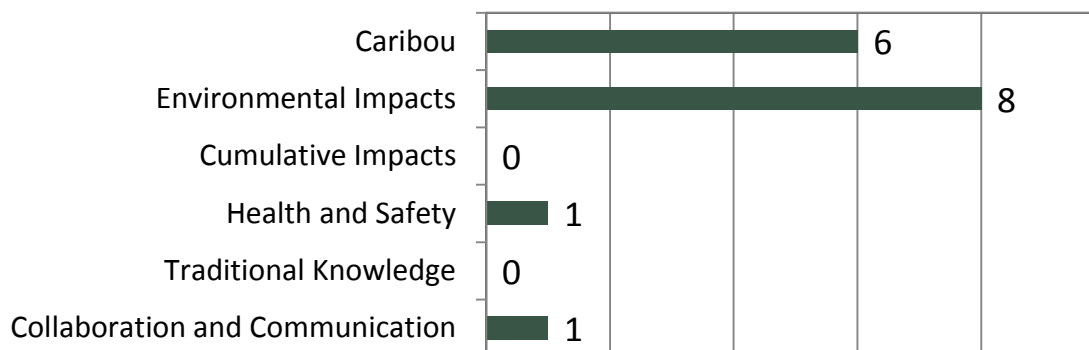
Accomplishments (FY 2012/13)

Project and Proposal Activity

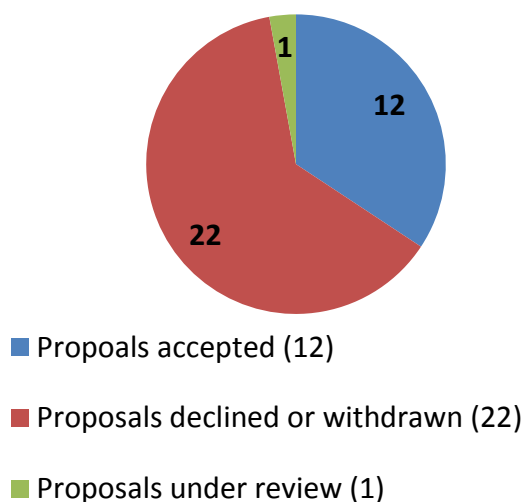
Proposal and project activity for the 2012/13 fiscal year is summarized in the charts below.

Projects accepted for support in the 2012/13 fiscal year were within the funding areas of Caribou, Environmental Impacts and Health and Safety. In total, twelve new projects were approved for funding while nine projects were completed.

Project Activity



Proposal Activity

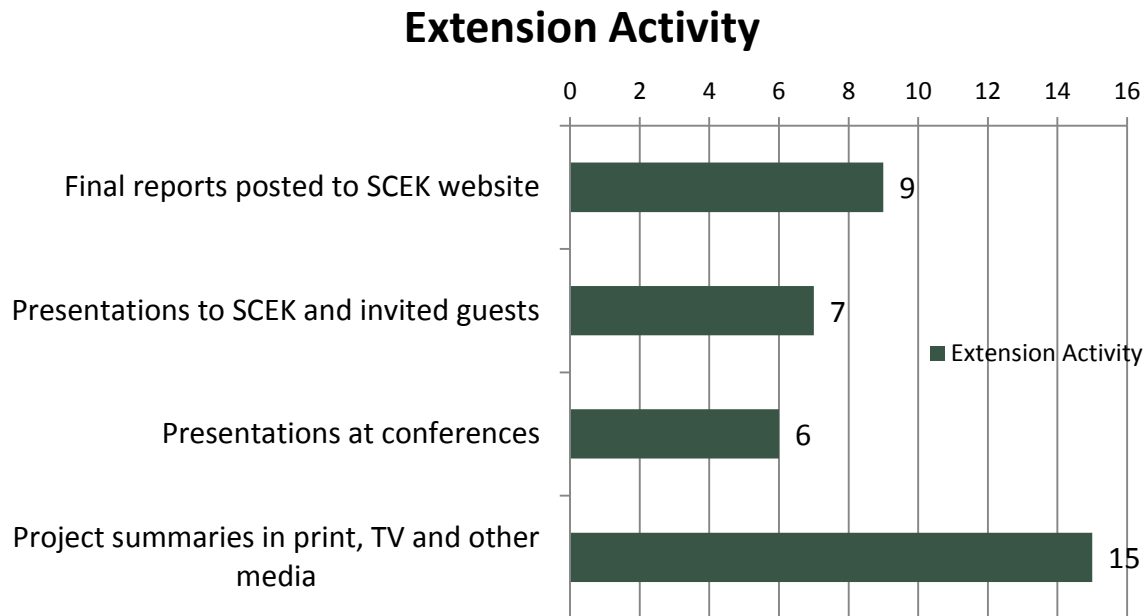


The review and recommendation of projects for funding changed slightly this fiscal year. Recommendations to fund caribou related projects were made by a committee structure external to the SCEK Fund. Non-caribou related projects were strategic requests from our major stakeholders to support the collection of science-based information to inform emerging public policy discussions.

A description of the SCEK Fund's active projects can be found in Appendix 1 of this Report. More information on projects and findings within the Caribou Fund can be found in the Caribou Fund's annual report available on the SCEK website at: <http://www.scek.ca/boreal-caribou/about>.

Extension Activity

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



Final reports—all projects delivered a report explaining the project and its findings. These reports—prepared by the project team—were posted on the SCEK Fund’s website for distribution.

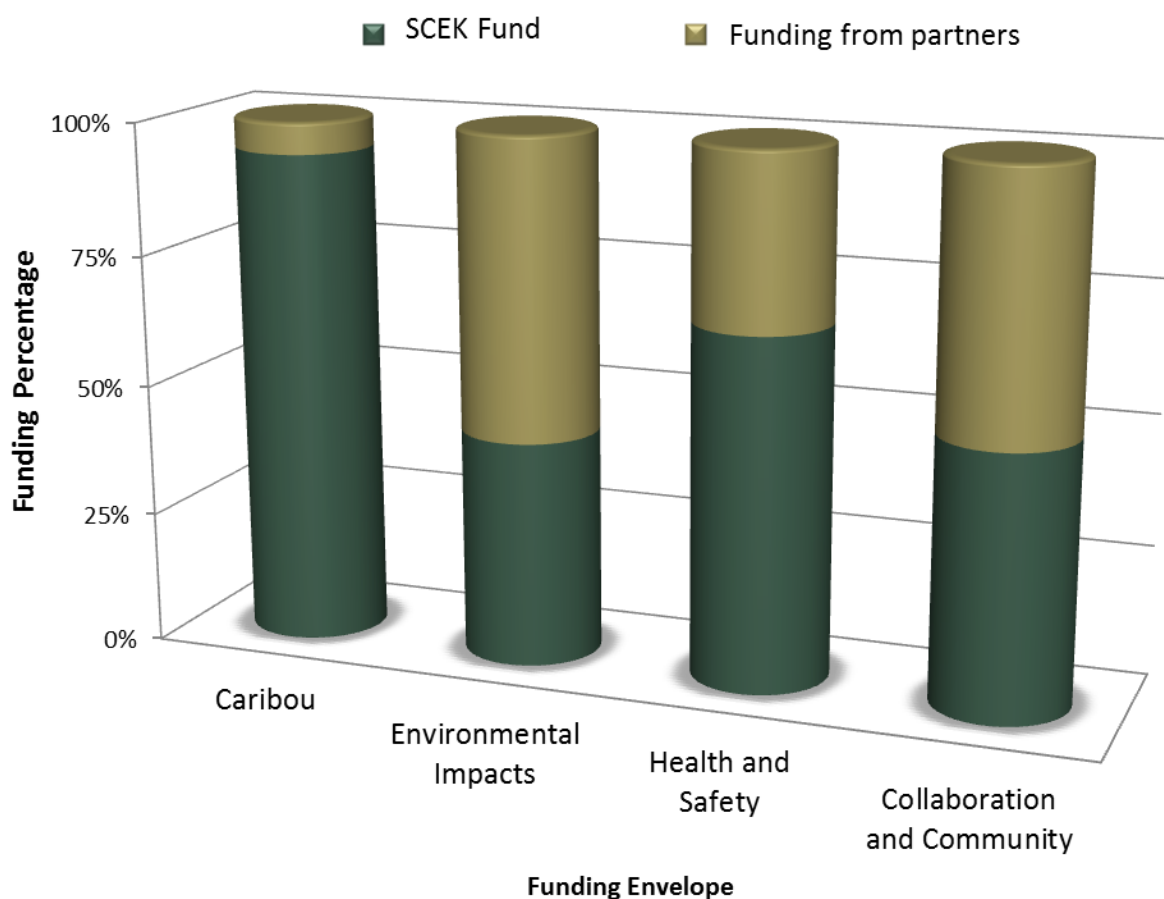
Presentations—in FY 2012/13, seven project presentations were made to the SCEK Steering Committee and invited guests such as representatives from government, regulators and industry, while six other presentations were made at environmental themed conferences. These presentations explained the project’s findings and potential applications.

Project summaries in print, TV and other media—in FY 2012/13, the SCEK Fund and its extension partners published 15 releases such as newspaper articles, press releases and project profiles and engaged in social media activities to raise awareness about projects funded by the SCEK Fund in communities where we operate.

Leveraging our Investments

An increasing number of the SCEK Fund'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 allows 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.

Leveraging of SCEK Fund Investments

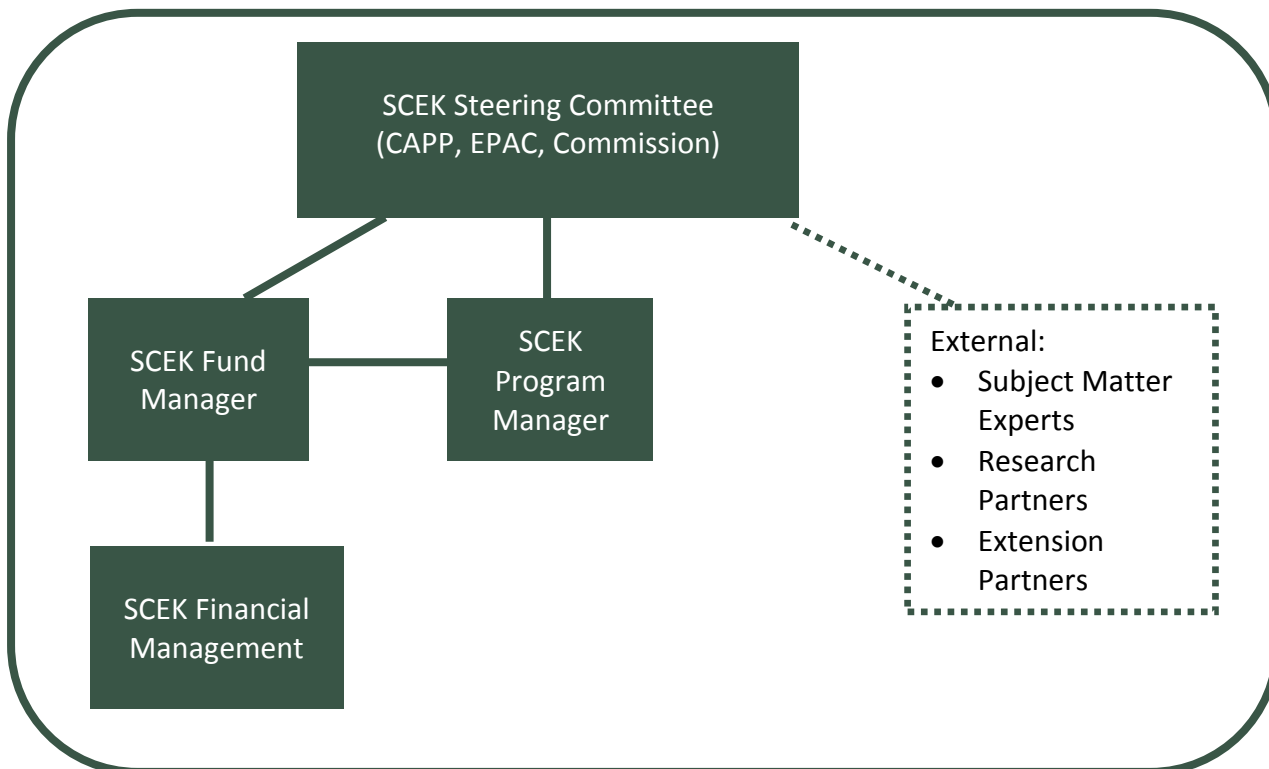


**Leveraging of SCEK Funds in research projects undertaken in FY 2012/13
(by Funding Envelope)**

The illustration above summarizes the leveraging of SCEK funding in 2012/13. The illustration shows the percentage of funding provided by the SCEK Fund and the percentage by our research partners. Funding envelopes with no activity are not shown. The operating funds (i.e., non-Caribou envelopes) supported an average of between 43 per cent and 67 per cent of the total value of research projects in which it participated.

Governance and Management

The SCEK Steering Committee is responsible for the 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), Explorers and Producers Association of Canada (EPAC) 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.

Financial Report (FY 2012/13)

Results of Operations

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

In FY 2012/13, additional revenue was received from Trans Canada Pipelines who made a contribution to the Caribou funding envelope, and thirteen (13) oil and gas companies who contributed to the Northeast Air Monitoring Project under the Health and Safety funding envelope.

A summary of financial activity in FY 2012/13 is shown below. The activity is broken down by funding envelopes with the Operating column representing all the envelopes except the Caribou envelope.

The annual financial audit of the SCEK Fund was completed by external auditors. Copies of the audit statement and the audited financial reports are available on the SCEK website at www.scek.ca.

Statement of Financial Position (as at March 31, 2013)

	Operating Envelopes	Caribou Envelope	Total
Assets			
Current assets			
Cash	\$775,961	\$1,127,232	\$1,903,193
Accounts receivable	\$1,139	\$561	\$1,700
Due from the Commission		\$875,867	\$875,867
Sub-total	\$777,100	\$2,003,660	\$2,780,760
Capital assets			
Caribou collars	—	\$117,108	\$117,108
Total Assets	\$777,100	\$2,120,768	\$2,897,868
Liabilities and Net Assets			
Current liabilities			
Accounts payable	\$425,638	\$218,442	\$644,080
Holdbacks	\$5,212	—	\$5,212
Due to Commission	\$7,370	\$7,142	\$14,512
Deferred Contributions	\$106,675	—	\$106,675
Sub-total	\$544,895	\$225,584	\$770,479
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	Operating Envelopes	Caribou Envelope	Total
Fund Balances			
Operating	\$232,205	—	\$232,205
Caribou	—	\$1,895,184	\$1,895,184
Sub-total	\$232,205	\$1,895,184	\$2,127,389
Total Liabilities and Net Assets	\$777,100	\$2,120,768	\$2,897,868

Statement of Operations and Net Assets (for year ending March 31, 2013)

	Operating Envelopes	Caribou Envelope	Total
Revenue			
Contributions	\$39,725	\$20,000	\$59,725
Fees	—	\$321,200	\$321,200
Levies	—	\$1,502,501	\$1,502,501
Other	\$10,819	\$5,329	\$16,148
Sub-total	\$50,544	\$1,849,030	\$1,899,574
Expenses			
Project costs	\$544,277	\$604,455	\$1,148,732
Professional services	\$36,120	\$61,465	\$97,585
Amortization expense	—	\$3,671	\$3,671
Management fees	\$29,480	\$14,520	\$44,000
Miscellaneous	\$201	\$3,544	\$3,745
Sub-total	\$610,078	\$687,655	\$1,297,733
Excess of revenue over expenses	(559,534)	\$1,161,375	\$601,841
Fund balance beginning of year	\$791,739	\$733,809	\$1,525,548
Fund balance end of year	\$232,205	\$1,895,184	\$2,127,389
Planned Commitments (13/14)	\$418,000*	\$784,938	
Forecasted Commitments (13/14)	\$374,000*	\$688,000	

* Subject to availability of funding

Priorities (FY 2013/14)

Priorities for the SCEK Fund in FY 2013/14 include the following:

Priority		Description
✓	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 for the Operating Fund	Obtaining support from our major stakeholders to address the investment pool for the Operating Fund. This will ensure continued support for multi-year projects that are already underway, and support for priority projects that we envision arising in the next one to three years.
	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 major stakeholders such as undertaking projects to inform emerging public policy topics, 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 our 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 2013/14)

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 and our major stakeholders.

The funding priorities for FY 2013/14 include the following items:

- Caribou—collect base data, monitor collared caribou and undertake site-level research projects,
- Seismicity—establish a seismic array network to collect data on seismic activity in northeast B.C.,
- Air—establish a monitoring network to collect data on air quality in northeast B.C.,
- Water—support research on surface water quantity and ground water quality, and
- Green House Gas (GHG) reductions—collect baseline data.

Forecasted Research Funding (FY 2013/14)

	2013/14*	2014/15*	2015/16*	Total*
Research Projects (Current and Forecasted)				
Current research projects (2012/13)	\$53	--	--	\$53
Forecasted SCEK Caribou Fund projects	\$2,000	\$2,000	\$2,000	\$6,000
Forecasted SCEK Operating Fund projects	\$1,000	\$1,000	\$1,000	\$3,000
Total	\$3,053	\$3,000	\$3,000	\$9,053
Project expenditure (by funding envelope)				
SCEK Caribou Fund	\$2,000	\$2,000	\$2,000	\$6,000
SCEK Operating Fund:				
- Environmental impacts	\$550	\$500	\$450	\$1,500
- Community Environmental Knowledge	\$25	\$50	\$50	\$125
- Health and Safety	\$403	\$250	\$200	\$853
- Cumulative Impact Management	--	\$100	\$200	\$300
- Collaboration and Communication	--	--	--	--
- Unallocated	\$75	\$100	\$100	\$275
Total	\$3,053	\$3,000	\$3,000	\$9,053

* Numbers in thousands.

NOTE: The forecasted research funding for FY 2013/14 assumes an increase in the funds flowing into the Operating Fund for use in supporting multi-year research projects underway.

Appendix 1: Active Projects

The following projects, listed by funding area, were undertaken in FY 2012/13. 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: \$0.7 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 2012/13)



Inventory and Habitat Analysis project team following animal care guidelines while deploying radio collars (courtesy Diversified Environmental Services).

Inventory and Habitat Analysis Project

Deployment of 155 GPS/VHF radio collars on boreal caribou to collect and monitor inventory and habitat information (*Diversified Environmental Services*).

Moose Survey of Core Caribou Areas Project

Estimation of the population and distribution of moose in core boreal caribou areas in northeast B.C. (*Canadian Wildlife Capture, Eco-Web Ecological Consulting, Cortex Consultants, Wildlife Infometrics*).

Boreal Caribou Recruitment Survey Project

Estimation of the proportion of the boreal caribou population in northeast B.C. comprised of calves. (*Diversified Environmental Services*).

Predation Risk to Boreal Caribou Calves Project

Assessment of spatial factors affecting predation risk to boreal caribou calves. Year three of a four year project to inform policy and best management practices for protecting and managing boreal caribou and their habitat (*University of Alberta*).



Boreal Caribou Recruitment Survey project—tracking collared boreal caribou (courtesy Diversified Environmental Services).

Collaboration and Communication

Investment to-date: \$0.3 million

Focus

Improving communication between industry, regulators and government agencies, other stakeholders and First Nations.

Active projects (FY 2012/13)



Drilling Rig Apprenticeship Program students at Northern Lights College's drilling rig (courtesy Northern Lights College).

Drilling Rig Apprenticeship Program

Establishment of a training facility, complete with a drilling rig, for current and prospective workers in the oil and gas sector (*Northern Lights College, Shell Canada*).

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.

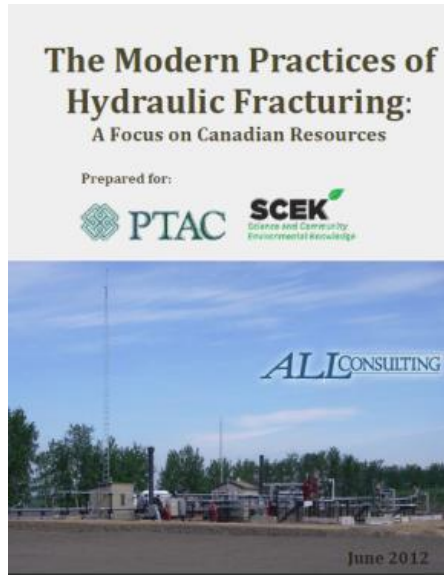
Active projects (FY 2012/13)

No active projects in FY 2012/13.

Investment to-date: \$3.0 million

Information and methods to avoid, minimize, or mitigate the impacts of oil and gas activities on terrestrial and aquatic ecosystems.

Active projects (FY 2012/13)



Risk of Hydraulic Fracturing project report
(courtesy ALL Consulting).

Risks of Hydraulic Fracturing Project

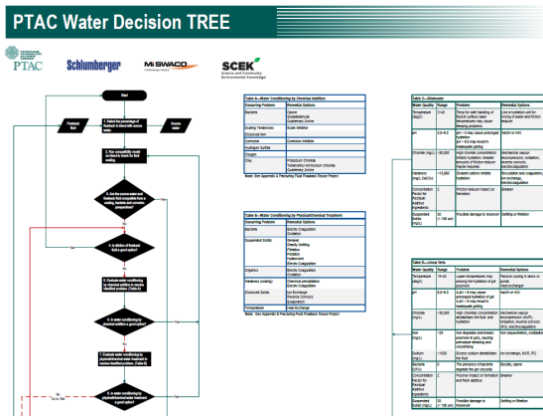
Completed in FY 2012/13, this project reported on the risks, regulatory gaps and best management practices in hydraulic fracturing operations (*ALL Consulting*).

Re-use of Hydraulic Fracturing Fluids Project

Completed in FY 2012/13, this project developed a methodology for re-using water with high salinity in hydraulic fracturing operations (*Petroleum Technology Alliance Canada—M-I SWACO*).

Water Inventory Project

Completed in FY 2012/13, this project produced an inventory of surface water, sub-surface aquifers and water wells in the Montney basin of northeastern B.C. (*Geoscience BC*).



Re-use of Hydraulic Fracturing Fluids project sample decision tree for re-using fracturing fluids.
(courtesy M-I SWACO).

Environmental Impacts (Continued)

Active projects (FY 2012/13)—Cont.



OGMA Assessment project sample footprint analysis map (courtesy of EnCana Corporation).

OGMA Assessment Project

Identification of existing oil and gas tenures overlapping with Old Growth Management Areas (OGMAs) in northeastern B.C. and information for consideration in public policy discussions on establishing and working in OGMAs (*EnCana Corporation*).

Stone's Sheep Project

Completed in FY 2012/13, this project produced management guidelines for consideration in public policy discussions on resource development in Stone's Sheep areas (*Synergy Applied Ecology, Chillborne Environmental*).



Seismic Array Network project equipment—an installed seismograph station (courtesy Geoscience BC).

Seismic Array Network Project

Establishment of a network to collect data on seismic activity in northeast B.C. (*Geoscience BC*).

Health and Safety

Investment to-date: \$1.4 million

Focus

Advancing oil and gas practices related to human health and safety.

Active projects (FY 2012/13)



Northeast Air Monitoring project equipment—an air monitoring station (courtesy B.C. Ministry of Environment).

Northeast Air Monitoring Project

Establishment of monitoring equipment to capture air quality data for use in making informed public health decisions (*B.C. Ministry of Environment*).

Traditional 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.

Active projects (FY 2012/13)

No active projects in FY 2012/13.

Contact Us

SCEK Fund

**Suite 300, 398 Harbour Road,
Victoria, B.C.**

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www.scek.ca