

# BC OGRJS

BC Oil and Gas  
Research and Innovation Society

**SCEK**  
Science and Community  
Environmental Knowledge

# Annual Report

Fiscal Year 2014/15



**EPAC**  
CANADA'S OIL & GAS ENTREPRENEURS™

**BC OIL & GAS COMMISSION**

**CAPP**  
CANADIAN ASSOCIATION  
OF PETROLEUM PRODUCERS



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). Effective April 1, 2015, the SCEK Fund will become the BC Oil and Gas Research and Innovation Society (BC OGRIS).

### **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 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 Fund Report**

This report documents the operational and financial achievements for the 2014/15 fiscal year (April 1, 2014 to March 31, 2015) along with an overview of plans for the 2015/16 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](http://www.scek.ca)

Front/Back Cover Photo: Courtesy of Don Pettit, Peace PhotoGraphics.

## Message from the SCEK Fund Steering Committee

This is our final report on our research activities as operating under the Science and Community Environmental Knowledge (SCEK) Fund. Effective April 1, 2015, our legal structure will transition from the SCEK Fund to the BC Oil and Gas Research and Innovation Society (BC OGRIS)—a not-for-profit society under the BC Society Act. The governance, terms of reference and operating procedures of the SCEK Fund will carry on under the BC OGRIS. Our research priorities, budget and funding agreements will remain the same under the BC OGRIS as they were under the SCEK Fund. This change in our legal structure enables us to strengthen our governance over our research projects and expand our ability to form strategic partnerships.

In addition to preparing for this transition in legal structure, 2014/15 has involved an increase in our research activity. The Caribou Fund continued its programs to collect data and carry out research as outlined in the Memorandum of Understanding between the B.C. Government and industry—a five year commitment to support research under the Implementation Plan for the Ongoing Management of Boreal Caribou in B.C. Plans to restore boreal caribou habitat were also started with a view to undertaking landscape level pilot projects in 2015/16. The Operating Fund focused on starting, or continuing, projects that are closely tied to research for use in informing public policy and/or regulatory decision making.

Going forward into 2015/16, we will complete our transition from the SCEK Fund to the BC OGRIS. Key initiatives include continuing our commitment to fund research requested by our major stakeholders—focused on environmental themes of boreal caribou populations and habitat, seismicity, water and air quality and greenhouse gas reductions. In addition to our re-branding as the BC OGRIS, we will expand our strategic partnerships to ensure we have the capacity to respond to the information needs and expectations of our stakeholders—including attracting good research, leveraging our investments and avoiding duplication of research activity with other organizations. As the overall industry grapples with the impact of low commodity prices and reduced investment, we will continually monitor our investments and administrative activities to look for cost savings, synergies and leveraging opportunities wherever possible. Following strong governance processes are an integral part of our strategy to ensure wise use of funds, delivery of results and dissemination of findings.

The incorporation of the BC OGRIS as a not-for-profit society is an exciting step for us. As we look into the coming year, our inventory of potential and approved projects will result in a busy but rewarding year. We look forward to another year of providing science based findings on environmental aspects of oil and gas activities that are important to the oil and gas sector and the people of British Columbia.

Geoff Morrison  
Chair, SCEK Fund Steering Committee

## Report on the SCEK Fund (FY 2014/15)

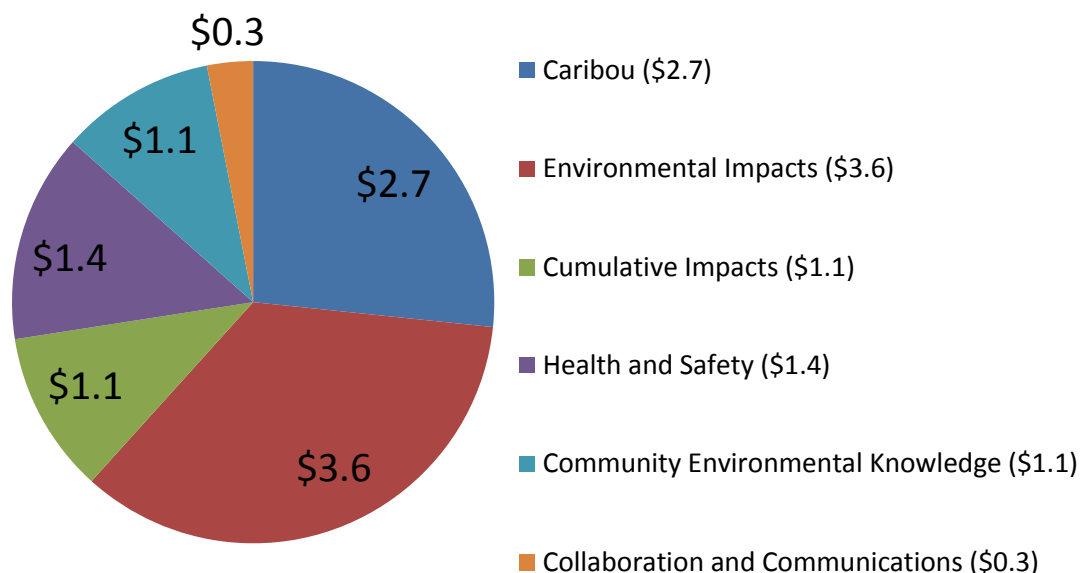
### Introduction

The SCEK Fund is a professional research fund that focuses on researching the environmental 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 SCEK Fund is funded through contributions by the upstream oil and gas companies, large and small, through fees and levies administered by the Commission. The SCEK Fund is part of industry's commitment to responsible development and the Commission's mission to regulate oil and gas activities for the benefit of British Columbians.

The charts below and following section summarizes the activity in the SCEK Fund in 2014/15. More information on the SCEK Fund, including the terms of reference and business plan, can be found on the website at: [www.scek.ca](http://www.scek.ca).

### Investment To-date (Millions)\*



\* Since project expenditures commenced in 2000.

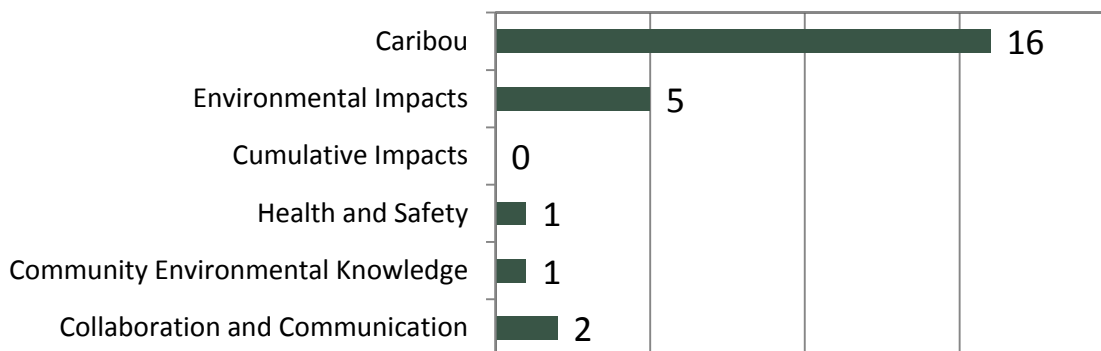
## Accomplishments (FY 2014/15)

### Project and Proposal Activity

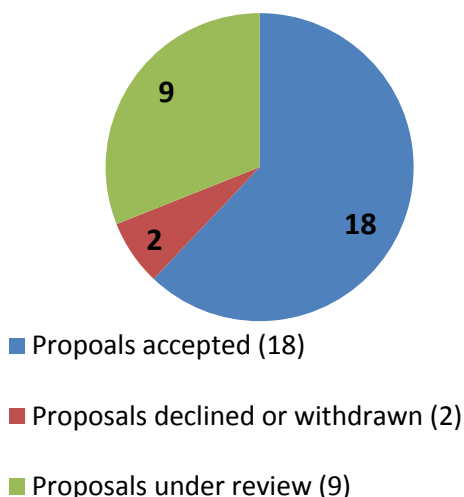
Proposal and project activity for the 2014/15 fiscal year is summarized in the charts below.

Projects accepted for support in the 2014/15 fiscal year were within the funding areas of Caribou, Environmental Impacts, Health and Safety, Community Environmental Knowledge and Collaboration and Communication. In total, 18 new projects were approved for funding while 10 projects were completed.

### Active Projects in 2014/15



### Proposal Activity

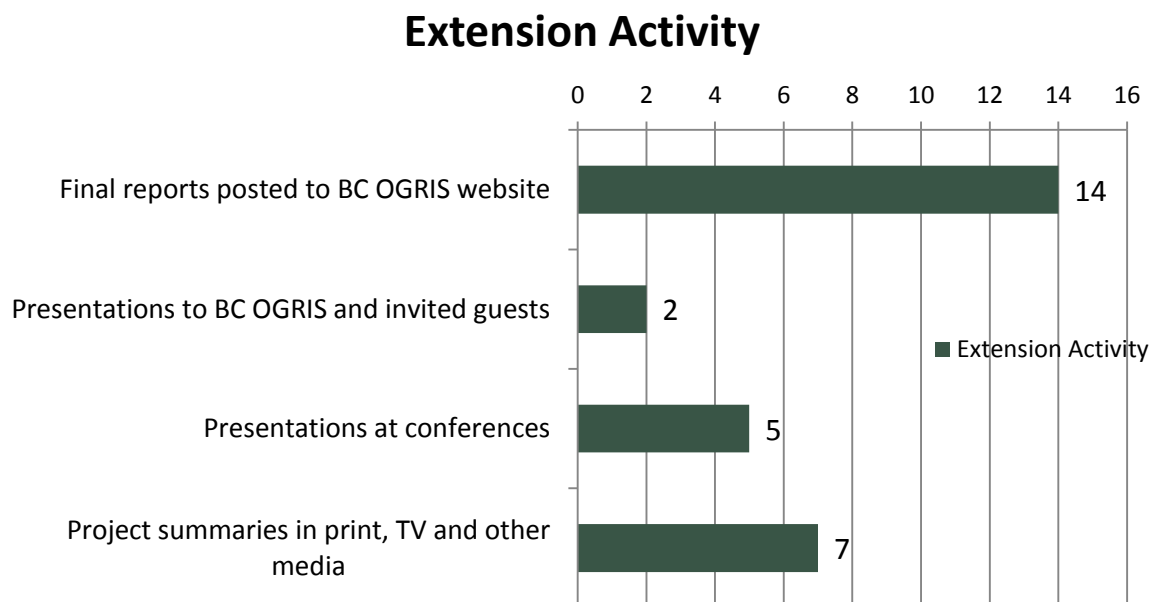


The review and recommendation of projects for funding is divided into Caribou Fund projects and Operating Fund projects. Recommendations to fund boreal caribou related projects were made by a committee structure external to the SCEK Fund. Non-boreal caribou related projects were strategic requests from our major stakeholders to support the collection of science-based information to inform emerging public policy discussions and/or support regulatory decision-making.

More information on projects and findings within the Caribou Fund can be found in the Research and Effectiveness Monitoring Board (REMB) Annual Report available on the SCEK Fund website at: <http://www.scek.ca/boreal-caribou/about>.

## Extension Activity

Extension activities undertaken this year to disseminate findings and 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 website for use by government, industry and other interested readers.

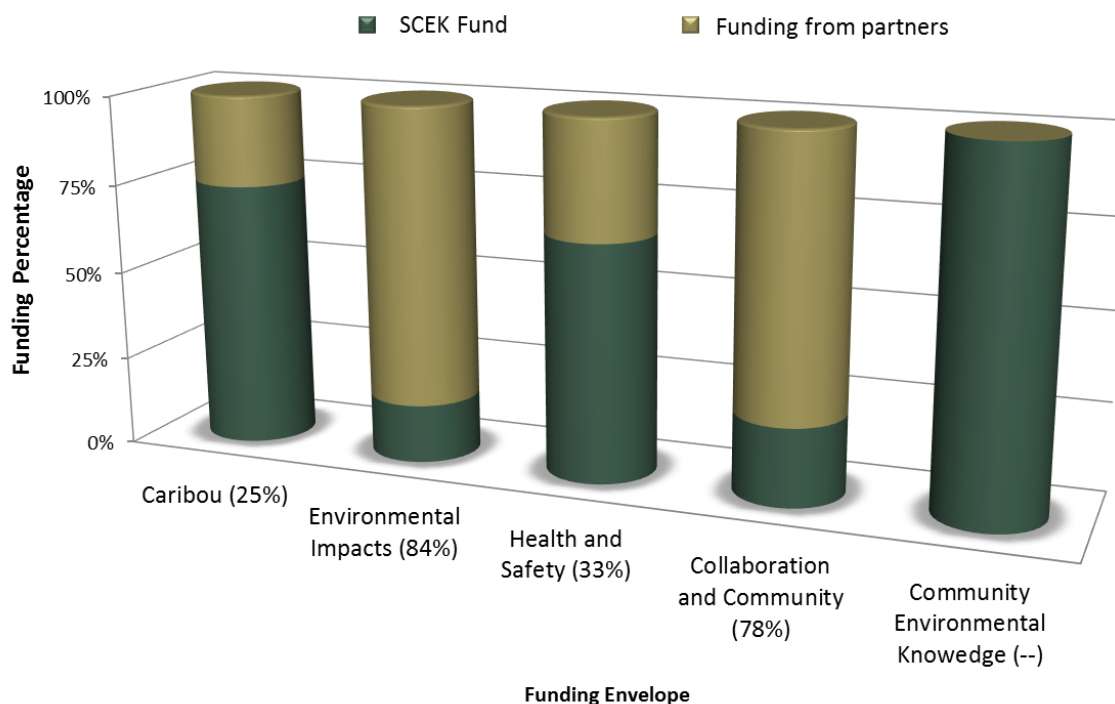
**Presentations**—in FY 2014/15, two project presentations were made to the SCEK Fund Steering Committee and/or invited guests such as representatives from government, regulators and industry, while five other presentations were made at environmental themed conferences. These presentations explained the project’s findings and potential applications.

**Project summaries in print, TV and other media**—in FY 2014/15, the SCEK Fund and its extension partners published seven 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, and 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. As a result, the SCEK Fund undertakes 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



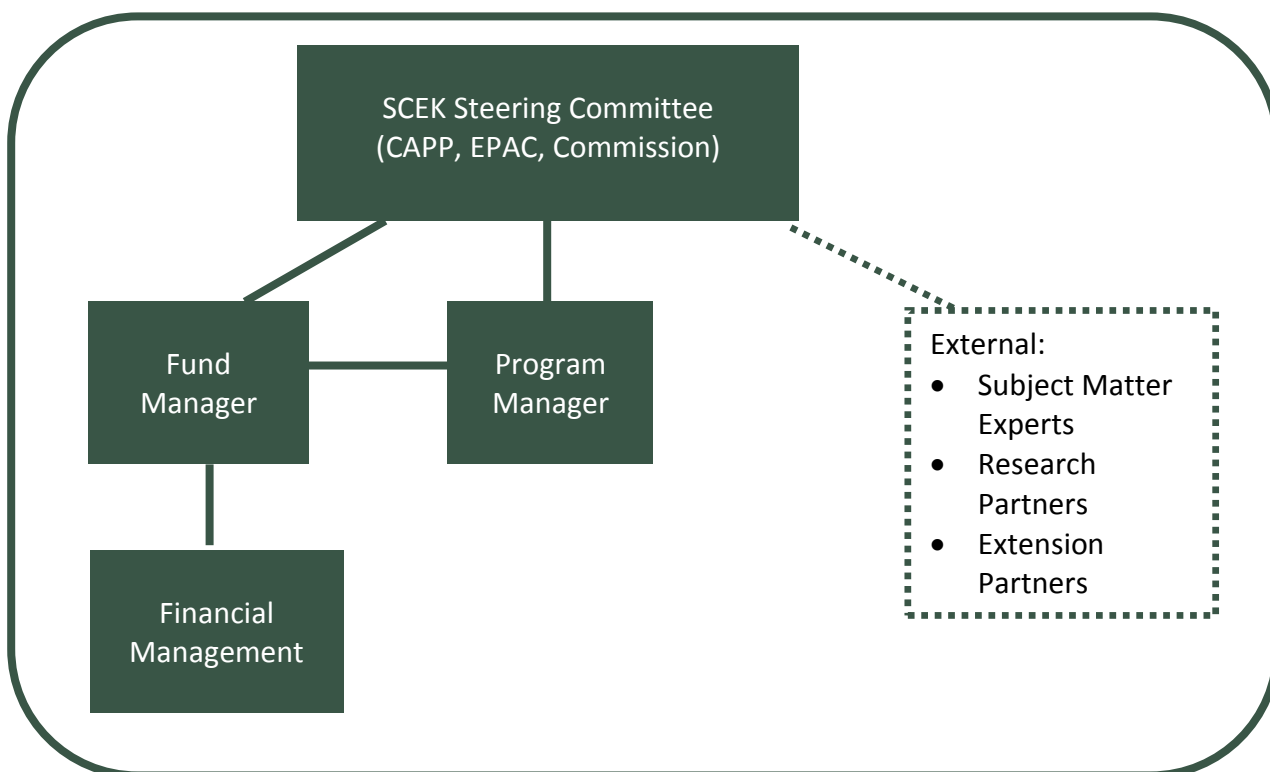
Percentage of Project Specific Funding Provided by Research Partners in FY 2014/15 (by Funding Envelope)

The illustration above summarizes the leveraging of SCEK funding in 2014/15. 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. With the exception of the Community Environmental Knowledge funding envelope, external research partners contributed between 25 and 84 per cent of the total value of our research projects—leveraging our investments while bringing a wider pool of expertise to the research.



## 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 Fund website are also provided by this group.



## Research Activities (FY 2015/16)

The table below illustrates the forecasted research funding, by funding envelope, over the next three years. The SCEK Fund, operating as the BC OGRIS in FY 2015/16, 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 2015/16 include the following research areas:

- Caribou—continue to collect and monitor base data, undertake site-level monitoring projects and a pilot project in landscape level habitat restoration.
- Seismicity—maintain a seismic array network to collect and analyze data on anomalous induced seismic activity in the northeast of B.C.
- Air—expand the ambient air monitoring network to collect and analyze data on air quality in the northeast of B.C. Research associated with the Northern Health Study (Phase 2) is included in this priority
- Water—collect science based information on water quantity and quality.
- Green House Gas (GHG) reductions—collect baseline data for use in emission factors.
- Community Environmental Knowledge—develop guidelines for reclamation using traditional use native plants.
- Cumulative Impact—collect science based information to inform public policy.

## Forecasted Research Funding (FY 2015/16)

	2015/16*	2016/17*	2017/18*	Total*
<b>Project expenditure (by funding envelope)</b>				
Caribou Fund	\$2,000	\$2,000	—	\$4,000
Operating Fund:				
- Environmental impacts	\$500	\$350	\$350	\$1,200
- Community Environmental Knowledge	\$100	\$100	\$50	\$250
- Health and Safety	\$250	\$250	\$250	\$750
- Cumulative Impact Management	\$200	\$200	\$200	\$600
- Collaboration and Communication	\$30	\$20	\$50	\$100
- Unallocated	\$120	\$80	\$100	\$300
<b>Total</b>	<b>\$3,200</b>	<b>\$3,000</b>	<b>\$1,000</b>	<b>\$7,200</b>

\* Numbers in thousands.

## Active Projects

The following projects, listed by funding area, were undertaken in FY 2014/15. More information on these projects can be found on the SCEK Fund website at [www.scek.ca](http://www.scek.ca).

### Caribou

Investment to-date: \$2.7 million

#### Focus

Supporting the Government of B.C.'s implementation plans for the ongoing management of caribou in B.C. through conducting research on caribou and their habitat. The governance around the implementation plan and underlying activities is supported by a Memorandum of Understanding (MoU) between industry and the B.C. Government with a term from 2011 to 2016.

#### Active projects (FY 2014/15)



Boreal Caribou Telemetry Program—wolf collar deployment (courtesy Diversified Environmental Services).



Boreal Caribou Telemetry Program—project team following animal care guidelines while deploying radio collars (courtesy Diversified Environmental Services).

#### Monitoring and Census

- Purchase, deployment and monitoring of caribou and wolf radio-collars (*Diversified Environmental Services*).
- Purchase and deployment of moose radio-collars (*B.C. Ministry of Forests, Lands and Natural Resource Operations*).
- Management and reporting of caribou, wolf and moose telemetry data (*Caslys Consulting*).
- Boreal Caribou health study (*B.C. Ministry of Forests, Lands and Natural Resource Operations; University of Calgary*).
- Wolf census (*Alberta Biodiversity Monitoring Institute*).

#### Predators and Prey

- Predation risk to caribou calves (*University of Alberta*).
- Role of moose in the predator-prey system (*University of Northern British Columbia*).
- Reducing predator use of petroleum development roads (*Nexen Energy*).

## Caribou (Continued)

### Habitat Restoration

- Boreal Caribou Habitat Restoration Toolkit: A Practitioner's Guide (*Golder Associates*).

### Other Research

- Determining when caribou habitat is functional (*Foothills Research Institute*).
- Image age classification system for anthropogenic features (*Caslys Consulting*).
- Feasibility of direct management options for recovering Boreal Caribou populations (*Wildlife Infometrics*).

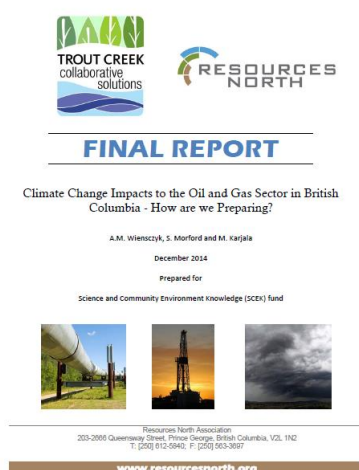
## Collaboration and Communication

Investment to-date: \$0.3 million

### Focus

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

### Active projects (FY 2014/15)



Climate Change Readiness Survey  
Final Report  
(courtesy Resources North Association).

### Climate Change Readiness Survey

Survey of the oil and gas sector to assess the collective awareness and preparedness of the sector for climate change. The project identified opportunities to improve the awareness and preparedness for climate change as well as identifying opportunities for coordinating adaptation strategies (*Resources North Association*).

### Crown Conservation Land Designations in Northeast B.C.

Review Crown conservation lands in the northeast B.C. and provide information for use in updating current conservation land designations—to address knowledge gaps and the volume of referrals to agencies holding Crown conservation land tenures. (*Ducks Unlimited 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 2014/15)

No active projects in FY 2014/15.

## Environmental Impacts

Investment to-date: \$3.6 million

### Focus

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

### Active projects (FY 2014/15)



Northeast B.C. Seismic Array Network Project—an installed seismograph station (courtesy Geoscience BC).



### Anomalous Induced Seismicity

- Northeast B.C. seismic array network project—year three of five (*Geoscience BC*).

### Water Quality and Quantity

- Alternative approaches for assessing and remediating produced water (*Hemera*).
- Mapping ground water aquifers in Montney area (*Geoscience BC*).

### Other Research

- Ecological buffering criteria for oil and gas activities in northeast B.C. (*EcoLogic Research*).
- Publishing of the B.C. Breeding Bird Atlas (*Bird Studies Canada*).

Mapping Ground Water Aquifers in Montney Area project—airborne mapping of subsurface aquifers (courtesy 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 2014/15)



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

### Northeast B.C. Ambient Air Monitoring Project

Year two of a three-year project to establish an ambient air monitoring network in northeast B.C. to capture air quality data for use in making informed public health decisions (*B.C. Ministry of Environment*).



Long Term Oil and Gas Agreement (LTOGA) Reclamation Project—Black huckleberry leaves and berries; a traditional use native plant (courtesy Keefer Ecological Services).

## Community Environmental Knowledge

Investment to-date: \$1.1 million

### Focus

Documenting, demonstrating and improving the application of community environmental knowledge to oil and gas planning, development and restoration.

### Active projects (FY 2014/15)

### Long Term Oil and Gas Agreement (LTOGA) Reclamation Project

Advance oil and gas site reclamation and priorities through cross-cultural knowledge, awareness and tools for restoring traditional use native plants in disturbed areas (*Treaty 8 LTOGA First Nations; Keefer Ecological Services*).

## Financial Report (FY 2014/15)

### Results of Operations

The SCEK Fund receives most of its investment funds from levies on production volumes and fees from well applications. In March 2015, the Commission made a contribution to the SCEK Fund which is intended to replace revenue from fees and levies in fiscal year 2015/16.

A summary of financial activity in FY 2014/15 is shown below. The activity is broken down by funding envelopes with the Operating Fund column representing all the funding envelopes except the Caribou Fund.

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 Fund website at <http://www.scek.ca/content/about>.

### Statement of Financial Position (as at March 31, 2015)

	Operating Fund (000's)	Caribou Fund (000's)	Total
<b>Assets</b>			
<b>Current assets</b>			
Cash	\$ 2,704	\$ 5,829	\$ 8,533
Accounts receivable	1	3	4
Due from the Commission	245	489	734
Prepays	—	19	19
<b>Sub-total</b>	<b>2,950</b>	<b>6,340</b>	<b>9,290</b>
<b>Capital assets</b>			
Caribou collars	—	178	178
<b>Total Assets</b>	<b>2,950</b>	<b>6,518</b>	<b>9,468</b>
<b>Current liabilities</b>			
Accounts payable	137	249	386
Deferred contributions	—	2,000	2,000
Due to Commission	—	27	27
<b>Sub-total</b>	<b>137</b>	<b>2,276</b>	<b>2,413</b>
<b>Fund Balances</b>	<b>2,813</b>	<b>4,242</b>	<b>7,055</b>
<b>Total Liabilities and Net Assets</b>	<b>2,950</b>	<b>6,518</b>	<b>9,468</b>



**Statement of Operations and Net Assets (for year ending March 31, 2015)**

	<b>Operating Fund (000's)</b>	<b>Caribou Fund (000's)</b>	<b>Total</b>
<b>Revenue</b>			
Interest	\$ 14	\$ 27	\$ 41
Contributions	1,500	—	1,500
Fees	254	508	762
Levies	901	1,801	2,702
<b>Sub-total</b>	<b>2,669</b>	<b>2,336</b>	<b>5,005</b>
<b>Expenses</b>			
Project costs	119	935	1,054
Professional services	38	158	196
Amortization expense	—	56	56
Loss on disposal of assets	—	11	11
Extension and communication	—	14	14
Management fees & miscellaneous	15	30	45
<b>Sub-total</b>	<b>172</b>	<b>1,204</b>	<b>1,376</b>
<b>Excess of revenue over expenses</b>	<b>2,497</b>	<b>1,132</b>	<b>3,629</b>
<b>Fund balance beginning of year</b>	<b>316</b>	<b>3,110</b>	<b>3,426</b>
<b>Fund balance end of year</b>	<b>2,813</b>	<b>4,242</b>	<b>7,055</b>

## In Closing

Effective April 1, 2015, we will be operating as the BC Oil and Gas Research and Innovation Society (BC OGRIS). Future communications, including this report, will be released under the BC OGRIS name—while we will continue operating essentially the same as we did under the SCEK Fund.

From our beginning in 1999, we have supported close to 100 projects ranging in size from short studies and reports to multi-year projects involving multiple researchers and organizations. In the last three years, our level of activity in funding requests and projects has quadrupled. This trend is forecasted to continue. Our projects are getting larger and focused on strategic requests for science based information from our major stakeholders. This is an exciting time for the BC OGRIS as we move into a new phase of growth.

We thank all our stakeholders, researchers, technical reviewers and administration team for their assistance in delivering these research projects. Your support and assistance enable us to meet our goals and deliver findings that address important knowledge gaps in environmental and social aspects of oil and gas development in B.C.

Comments and questions on this report and/or the SCEK Fund or BC OGRIS can be sent to [info@bcogris.ca](mailto:info@bcogris.ca).