UNIVERSITY OF NORTHERN BRITISH COLUMBIA

MEMORANDUM

To: Dr. Geoff Payne, Vice President Research
Dr. Dan Ryan, Chair, Senate Committee on Academic Affairs

From: Dr. Darwyn Coxson

Date: 1 April 2016

Re: NRESi's 2015-2016 Annual Report and 2016-2017 Workplan

Dear Drs. Payne and Ryan,

As per UNBC's Policy and Procedures for Centres and Research Institutes, please find attached the 2015-2016 Annual Report for the Natural Resources and Environmental Studies Institute (NRESi) covering the 2015-2016 fiscal year and NRESi's workplan of activities for 2015-2016. Both have been reviewed and discussed by its members at their 2015 Annual General Meeting.

On behalf of NRESi, I would like to thank you for your ongoing support. NRESi was focused on continuing the activities and initiatives that its members and the community have come to expect, as well as exploring and expanding possible research and project opportunities for NRESi and its members. Work has been focused on providing value to members, to UNBC, and the broader community, in a number of different ways. This will be explained in detail in the accompanying 2015-2016 Annual Report. NRESi continues to work towards the goals and objectives described in its five-year Strategic Plan, while also being flexible to new opportunities and ideas as they arise, as described in the 2016-2017 workplan of activities.

NRESi had another productive year, resulting in a positive financial report and is exploring opportunities for long-term financial planning and sustainability, the continuance of ongoing activities, as well as the addition of new projects and initiatives to further support the work of NRESi's members, UNBC, and its community partners.

Enclosures: NRESi Annual Report 2015-2016

NRESi Workplan 2016-2017

cc: NRESi Steering Committee Members

Natural Resources & Environmental Studies Institute

2015-2016 Annual Report

Overview of NRESi

The Natural Resources & Environmental Studies Institute (NRESi) works to promote and implement integrative research to address natural resource systems and human uses of the environment, with a particular focus on northern regions and creating solutions-based approaches.

NRESi is an association of researchers from the UNBC faculty and external community that work and have interest in themes related to natural resources and the environment. This association of members have committed to learning from each other and seeing the value in collaborative initiatives that take an interdisciplinary approach. It is recognized that many, if not most themes related to this broad research area cannot be viewed or understood in isolation. Every research theme takes place in a complex world that surrounds and interacts with it, factoring into planning, management, monitoring, and policy. NRESi provides a venue and network to link together otherwise distinct research themes and topics for a broader understanding.

NRESi works towards its objectives of knowledge sharing and identification of collaborative research opportunities in a number of different ways. The most recognizable and well-known is through lectures, both in terms of its weekly colloquium series, as well as other special lectures and events that NRESi hosts. These events also provide networking opportunities between participating NRESi members and the community. In addition, through the guidance of NRESi's Steering Committee and the activities of its staff, NRESi works to support its members by identifying and pursuing possible project opportunities on behalf of its members. NRESi also has an important communications role to a range of audiences, including: within its membership, UNBC, the broader the natural resource and environment community, and the general public.

Our Mission

The focus of NRESi is to bring together members of the university and research community to promote and facilitate integrative research on natural resource and environment issues. From here, it is recognized that issues arise in northern BC and beyond that NRESi members, together with the community and partners, have the ability through expertise and experience to address and look for solutions. NRESi has an important role in helping to coordinate and be a venue for important dialogues and research projects that address natural and anthropogenic changes.

NRESi can also assist in sharing research results that can be integrated into policy and management approaches and decisions.

NRESi has important role in creating linkages between researchers. This includes communication and the opportunity for interaction among UNBC and other university faculty, graduate students, and other associated researchers and research centers. It also recognizes the importance of making knowledge sharing and project participation open to the public, creating dialogues, and building linkages across a wide range of perspectives and expertise.

As a result of this integration across expertise, information can be developed in local communities to address local issues. Research findings can also be disseminated through NRESi's channels to allow for information to be shared to other areas facing similar issues or management and planning concerns. This has taken the form of presentations and extension, through NRESi's publication series and/or sharing current events and activities through the newsletter that others may find useful in their own work. NRESi continues to engage its members in discussions about how they would like NRESi to support their work, as well as the research needs of the broader community for mutual benefit that NRESi could help address.

Governance

The NRESi is overseen by a Director, selected for a 3-year term. The director for the 2015-2016 fiscal year was Dr. Darwyn Coxson, serving in the 2nd year of his appointment. In addition to a Director, NRESi is supported by a Research Manager who moves forward the day-to-day activities and needs of NRESi and its members, NRESi's initiatives, project development and communications. The 2015-2016 fiscal year saw a transition in research managers. Alan Wiensczyk became the NRESi Research Manager on a part-time basis on November 1st, 2015, replacing Leanne Elliott who left in September 2015.

The Director and Research Manager work closely with an internal Steering Committee. This group includes: three individuals elected to 2-year terms by the membership of the Institute, one member representing the Pacific Institute for Climate Solutions, and another representing the NRES Graduate Program. See Table 1. The intent of this group is to reflect the perspectives of NRESi's members, provide guidance to support the work and activities of NRESi, and ensure that the Institute functions in accordance with its vision statement and purpose.

Table 1. Steering Committee membership during 2015-2016 fiscal year.
*Steering Committee Members who will be leaving in the 2016-2017 fiscal year.

Name	Role	Term
Darwyn Coxson	Director	1 July 2014 – 30 June 2017
Allan Costello*	Elected Member	May 1, 2015 – April 30, 2016
Steve Helle	Elected Member	1 July 2014 – 30 June 2016
Paul Sanborn	Elected Member	1 July 2014 – 30 June 2016
Ian Hartley	NRES Grad Program Rep	Began 1 July 2014 with No Fixed Term
Michelle Connolly	PICS Representative	No Fixed Term

Leanne Elliott	Research Manager	11 February 2014 – 17 September 2015
Alan Wiensczyk	Research Manager	1 November, 2015 - 31 March 2017

During the 2013-2014 fiscal year, a framework was developed to consolidate the previous Management Committee and Advisory Committee into one group, the NRESi Advisory Panel. This new committee was presented and discussed at the 2014 Annual General Meeting and approved by the membership as an appropriate way to gather external insight and advice to NRESi's Steering Committee and membership. During the 2015/16 fiscal year individuals were identified and invited to participate on the Advisory Committee. Five representatives have accepted the invitation and the inaugural meeting of the committee is scheduled for June 2016. Efforts will be made to develop a clear list of discussion points and items where advice would be valuable as NRESi moves forward. Members of the Advisory Panel will include the following individuals and representatives:

- Ex Officio members – Vice-President (Research) as Advisory Panel Chair, NRESi Director, Vice-President (External Relations), NRESi Research Manager
- Appointed members – One Steering Committee representative, five members external to the university community

Table 2. Appointed Advisory Committee members

Name	**Affiliation**
Melanie Karjala	BC Oil and Gas Commission
Shannon Carson	BC Ministry of Forests Lands and Natural Resource Operations
Trevor McConkey	SNC Lavalin
Hardy Griesbauer	College of New Caledonia
Luke Gleeson	Tsay Keh Dene Nation

- Advice, support, and/or involvement from other UNBC representatives – Dean of CSAM, Dean of CASHS, Dean of Graduate Programs, Chair of NRES Graduate Committee, Directors of other Research Institutes

Membership

NRESi has three types of memberships. They are: (a) Full Members for UNBC tenured faculty, (b) Associate Members for other types of UNBC faculty and researchers external to the UNBC community, and, (c) Lifetime Members who have received recognition through NRESi's Lifetime Achievement or Community Advancement awards for lifetime membership spanning beyond their active research careers. It was decided at NRESi's 2014 Annual General Meeting to adjust the existing membership process. Any new applications for Associate Members, which have 3-year terms, will have their renewal extended from their membership anniversary to the date of the NRESi's next Annual General Meeting plus three years. Existing Associate Members will have renewals reviewed prior to NRESi's Annual General Meeting and those that have expired

during the previous 12-month period will be notified and given the opportunity to renew for another 3-year term.

The below (Table 2) provides an overview of NRESi's current membership, the membership category that each belongs to, and the most recent date of renewal (if applicable). This table shows that there are currently 70 NRESi members (Table 2). Membership activity during the reporting period included the addition of three new Full Members and three new Associate Members, the renewal of 3 Associate Members, and the loss of 2 Associate Members, and the loss of 2 Full members. Information about NRESi's members can be found on its website, such as their: research interests (http://www.unbc.ca/nres-institute/institute-members) and contact details (http://www.unbc.ca/nres-institute/members).

Table 3: Summary of NRESi's current membership, membership type, and the most recent renewal dates for Associate Members

Beckett, Douglas	Associate Member: March 2016	Maher, Patrick	Associate Member: Mar 26, 2015
Burton, Philip	Full	Massicotte, Hugues	Full
Connell, David	Full	McGill, Bill	Full
Connolly, Michelle	Associate Member: November 2015	Meletis, Zoe	Full
Costello, Allan	Full	Menounos, Brian	Full
Coxson, Darwyn	Full	Mullins, Philip	Full
Curry, John	Full	Murray, Brent	Full
Dawson, Russ	Full	Nolin, Catherine	Full
Déry, Stephen	Full	Opio, Chris	Full
Egger, Keith	Full	Otter, Ken	Full
Elkin, Che	Full	Owens, Philip	Full
Erasmus, Daniel	Full	Parker, Katherine	Full
Fondahl, Gail	Full	Petticrew, Ellen	Full
Fredeen, Art	Full	Poirier, Lisa	Full
Gantner, Nikolaus	New Associate Member: April 9, 2015	Procter, Dennis	Full
Gillingham, Mike	Lifetime Member	Rea, Roy	Full
Green, Scott	Full	Rutherford, Mike	Full
Haeussler, Sybille	Associate Member: Sept 25, 2012	Ryan, Dan	Full
Halseth, Greg	Full	Sambaraju, Kishan	Associate Member: April 9, 2015
Hanlon, Neil	Full	Sanborn, Paul	Full
Hartley, Ian	Full	Schwarzfeld, Marla	Associate Member: Oct 9, 2013
Hawkins, Chris	Full	Shrimpton, Mark	Full
Hawley, Alex	Lifetime Member	Shultis, John	Full
Heard, Doug	Associate Member: March 7, 2013	Sui, Jueyi	Full
Helle, Steve	Full	Summerville, Tracy	Full
Henry, Philippe	Associate Member: Oct 31, 2012	Tang, Youmin	Full
Huber, Dezene	Full	Thielman, Aynsley	Associate Member: Oct 17, 2015
Jackson, Peter	Full	Thring, Ron	Full
Johnson, Chris	Full	Venter, Oscar	Full
Karjala, Melanie	Associate Member: April 22, 2013	Wheate, Roger	Full
Lautensach, Alex	Full	Whitcombe, Todd	Full
Lavallee, Loraine	Full	Wilkening, Ken	Full
Lewis, Kathy	Full	Wilkerson, Orland	Full
Li, Jianbing (Jason)	Full	Wright, Pam	Full
Lindgren, Staffan	Lifetime Member	Young, Jane	Full

Report on Activities for 2015-2016

Background: In 2011-2012, NRESi's Steering Committee undertook a Strategic Planning process in order to identify the longer-term requirements and a sustainable model for the resourcing of NRESi. At the same time, increased overhead contributions from the NRESi project on Biodiversity Monitoring and Assessment Program (BMAP), under the leadership of Dr. Mike Gillingham, has provided for a period of financial stability. This has allowed NRESi to hire a dedicated Research Manager and work towards growth in activities and operations.

The below is a summary of NRESi's 2015-2016 initiatives, projects, and activities:

General Activities

- The Institute hosted 27 colloquia as part of the weekly NRESi Colloquium Series and which were organized by NRESi member Dr. Allan Costello and Research managers Leanne Elliott and Al Wiensczyk. Most of the colloquium presentations have been posted to NRESi's You Tube channel (https://www.youtube.com/channel/UC6WIRhriAQ2Yf3_Yu-3fy6A). A listing of past presentations and their abstracts can be found on NRESi's website (http://www.unbc.ca/nres-institute/colloquium-series).

Table 4. List of Colloquium Presentations including special presentations

Date	Name	Co-sponsor(s)
Sept 18, 2016	Dr Nicole Sukdeo (UNBC)	
Sept 25, 2016	Reg Whiten (Consultant)	
Oct 2, 2016	Dr. Chris Buse (CIRC) Dr. Art Fredeen (UNBC)	Cumulative Impacts Research Consortium (CIRC)
Oct 9, 2016	Drs. Ellen Petticrew and Phil Owens and Sam Albers (UNBC)	
Oct 16, 2016	Dr Grant Gilchrist (Carleton University)	
Oct 23, 2016	Dr. Aynsley Thielman (UNBC)	
Oct 30, 2016	Dr. Chris Buse (CIRC) NRESi awards ceremony	
Nov 6, 2016	Dr. Brian Menounos (UNBC)	
Nov 13, 2016	Dr. Leigh Torres (Oregon State U)	Inspiring Women Among Us
Nov 20, 2016	Patrick Earley (Wikipedia)	Inspiring Women Among Us
Nov 27, 2016	Dr. Mark Groulx (UNBC)	
Jan 13, 2016	Dr. Sybil Seitzinger (PICS)	Pacific Institute for Climate Solutions
Jan 15, 2016	Dr. Stefanie LaZerte (UNBC)	
Jan 22, 2016	Dr. Oscar Venter (UNBC)	
Jan 29, 2016	Chief Roland Willson (West Moberly First Nations)	
Feb 5, 2016	Dr. Christin Wiedemann (PQA Ltd.)	Inspiring Women Among US
Feb 19, 2016	Dr. Nancy Turner (UVIC)	First Nations Studies
Feb 25, 2016	Dexter Hodder	Peace-Williston Fish and Wildlife Compensation Program – Mackenzie
Feb 26, 2016	Dr. David Connell (UNBC)	
Mar 4, 2016	Dr. Mark Shrimpton	Peace-Williston Fish and Wildlife

		Compensation Program – Fort St John
Mar 4, 2016	Craig DeLong (Ecora Resource Group Ltd.)	
Mar 11, 2016	Jewel Yurkewich (BC MFLNRO)	
Mar 18, 2016	Dr. Anne Salomon (SFU)	UNBC Student Chapter of the Wildlife Society
Mar 21, 2016	Dr. Ronald Stewart (U of Manitoba)	Canadian Meteorological and Oceanographic Society
Mar 21, 2016	Dr. Karen Kidd (U of New Brunswick)	Peace-Williston Fish and Wildlife Compensation Program
Mar 24, 2016	Dr. Andrew Watson (U of Saskatchewan)	History Department/Dean of CASHS
Apr 1, 2016	Dr. Francesco Berna (SFU)	Anthropology Department

- Of the 27 colloquium that took place, many were special events and/or co-hosted with NRESi together with other groups on campus:
    - NRESi hosted the NRES Graduate Student Icebreaker event, which included a special lecture by a guest presenter followed by a NRES grad student poster session and reception – Dr. Grant Gilchrist
    - NRESi partnered with the "Inspiring Women Among Us" initiative to host a series of three speakers in support of this years theme "Women, Science & Environment". The three speakers wove into their presentations this theme which speaks to the persistent gender-related challenges for girls and women interested in STEM disciplines (science, technology, engineering and math) and to UNBC's green mandate and the local and global relevance of environmental consideration.
    - Each year, in partnership with the Peace Fish & Wildlife Compensation Program (PFWCP), NRESi organizes a special lecture during the colloquium that includes a presentation by a guest lecturer on a theme related to the PFWCP preceded by a reception/dinner to provide further networking opportunities. This year we had three presentations, one in Mackenzie, one in Fort St John and one in Prince George (more details below).
    - Other groups partnering on NRESi colloquium presentations this past year included the Cumulative Impacts Research Consortium (CIRC), the Pacific Institute for Climate Solutions (PICS), First Nations Studies, the UNBC fish and wildlife student chapter of the Wildlife Society, the Canadian Meteorological and Oceanographic Society (CMOS), the History Department and the Dean of CASHS, and the Anthropology Department.
- NRESi also hosted three special lectures, where guests to UNBC had the opportunity to share their research. Video recordings of most presentations were also uploaded to NRESi's Youtube channel for future public viewing (https://www.youtube.com/channel/UC6WIRhriAQ2Yf3_Yu-3fy6A):
    - Dr. Richard Hobbs, University of Western Australia (PICS)
    - Dr. Anke Jentsch, University of Bayreuth, Germany

    - Dr Lawrence R. Walker, University of Nevada, Las Vegas
- Work is continuing with UNBC's Communications Department to create a new video archive webpage for past NRESi lectures that will provide a more user-friendly interface that will be searchable by lecture topic, presenter, date, and keywords. A draft of this new webpage was developed and will be refined in the new fiscal year. All videos currently on NRESi's archive will be assigned categories and put into a format that can be uploaded to the new area and also searchable. The videos will also be converted to a public platform (e.g. YouTube), making them even more broadly available, accessible and searchable through Google and other search engines. All the videos of this past year's colloquium presentations have been posted to the NRESi youtube channel.
- In almost all cases, those interested in NRESi presentations and not able attend in person were able to participate via Livestream (video and slides) and Elluminate/Collaborate (slides and audio). Those attending on Elluminate/Collaborate were also provided the opportunity to contribute questions to the discussion through the system's chat feature. In February 2016, an email was sent to the NRESi list subscribers to determine the level of use of the Elluminate/Collaborate system. The vast majority of respondents indicated that they preferred to use LiveStream. As a result it was decided to discontinue the Elluminate/Collaborate broadcast of the colloquium presentations effective in September 2016, due to the extra costs associated with the use of this system. Another method will be developed to allow those participating via LiveStream to ask questions of the colloquium presenter.
- NRESi once again helped to organize the annual Undergraduate Thesis Presentation Day. Students completing a fourth-year thesis project are required to present their project and results. This year's event was split into two days with 4 students presenting on April 12, 2016, and 12 students scheduled to present and 6 others displaying posters on April 21, 2016. Students from NRES, BCMB, and CHEM were included. The event was supported in partnership with the Office of Research, the Biochemistry and Molecular Biology department and the Northern Medical Program.

Communications

NRESi continues to provide a means of internal communication between its members, as well as providing linkages where possible with external researchers and members of the community. This takes a number of different forms:

- NRESi event announcements and updates are distributed through a managed NRESi distribution list and to UNBC college mailing lists. NRESi also has a members-only list, where communications relevant specifically to the membership can be distributed. Event announcements are also posted to UNBC's public events listings, the NRESi website and the NRESi Facebook page.
- NRESi maintains a website, to provide information to the public about NRESi and its members, as well as an information platform for the public. The process to update NRESi's website began this year, by revising text to reflect the work and focus of NRESi.

This work will continue in the 2016-2017 fiscal year, by adding website features, making revisions, and refining its structure to make it more user-friendly and visually appealing.

- All NRESi lectures are recorded and posted to the NRESi Youtube channel (https://www.youtube.com/channel/UC6WIRhriAQ2Yf3_Yu-3fy6A)
- NRESi has created two social media accounts to share information and updates. They are: (a) Twitter (https://twitter.com/UNBC_NRESi) and (b) Facebook (https://www.facebook.com/unbcnresi?ref=hl).
- NRESi's weekly newsletter continued in 2015-2016, being posted to NRESi's broad network distribution list every second Friday. Each edition includes: 'NRESi Notes' which provides updates or special announcements for members and the community, event announcements and information, recent NRESi member publications, sharing of travel or conferences details attended by members, links to NRESi members in the media and other UNBC media releases of relevance to the NRESi audience, NRES graduate student defense details and events of interest, as well as other UNBC or community events and news items of interest to the network. NRESi members are invited to contribute information, announcements, and news, as well as stories and photos that might be of interest to others in the NRESi community.

Research

The NRESi links a community of researchers, with varied backgrounds and research interests, empowering them to pursue their disciplinary research in an interdisciplinary context. Consequently, many of the research initiatives undertaken by Institute members are collaborative efforts with other Institute members. Individual members of the Institute have strong disciplinary expertise in the natural, physical, environmental and social sciences; NRESi works to capitalize on this, by providing project and networking opportunities for knowledge sharing and finding new linkages. Work began, through scoping NRESi members and exploring opportunities, for building new NRESi projects that further connects multiple researchers and their interests. This will be expanded and a focus of activities for the 2015-2016 fiscal year, as well as identifying possible funders and project partners.

This past year, several NRESi members partnered on a project proposal submission to the Peace-Williston Fish and Wildlife Compensation Program to study and assess the nutrient dynamics and complex web of interactions between Kokanee, stream-living macro-invertebrates (Aquatic insects), and the surrounding riparian zone (lichen communities) as a result of the introduction of Kokanee into the Williston Reservoir. Conditional approval has been received for the first year of this 3-year project. This project will blend social and natural sciences and will involve working with two First Nations partners (Tsay Key Dene First Nation and Kwadacha First Nation). The project funding will additionally help with cost recovery of core salary expenditures by NRESi.

Cumulative Effects

The NRESi continued to participate in the tri-institute partnership-created Cumulative Impacts Research Consortium (CIRC) which was established in 2015 as a platform for research and

community dialogue on the cumulative impacts of resource development. The CIRC is a formal expression of collaboration between UNBC's three research institutes: the Community Development Institute (CDI), the Health Research Institute (HRI) and the Natural Resources and Environmental Studies Institute. There are three main objectives of the CIRC:

1. Foster integrative understandings of the increasingly intense challenge of cumulative impacts;
2. To conduct research in support of policy options for community development that local, regional, and provincial authorities can consider and potentially adopt; and,
3. To provide a platform for community engagement and dissemination of knowledge that will assist in understanding issues and options.

In early October 2015 CIRC held its launch event at the UNBC Conference Centre in Prince George. Key highlights from the first year of CIRC's operations include:

1. Formation of governing Steering Committee comprised of two representatives from each of the university's three research institutes, the CIRC project lead and the UNBC PICS representative.
2. Formation of a pan-northern Advisory Committee that can provide strategic input into CIRC initiatives. The Advisory Committee currently has 13 members from across northern British Columbia, representing a diverse variety of perspectives.
3. Development of significant partnerships with northern industry groups, local and provincial government authorities, local First Nations, and community organizations;
4. Development and delivery of four public forums to explore cumulative impacts across northern BC;
5. Leveraging the initial contribution from PICS into over $80,000 in matching funds in Year 1;
6. Securing over $165,000 in Year 2 funding.

Peace Fish and Wildlife Compensation Program Lectures

For the past number of years, NRESi has partnered with the Peace Fish and Wildlife Compensation Program to put on a lecture that has themes related to the natural resources around the Peace region and Williston Reservoir. Three presentations were delivered this year, one in Prince George, and one each in two other communities in the Northeastern region of the Province. Dexter Hodder (John Prince Research Forest) presented information on four species of fur-bearing mammals to an audience of 20 at the Mackenzie Recreation Centre on February 25, 2016. NRESi also continued our relationship with the Association of Professional Engineers and Geoscientists of BC Peace River Branch. On March 5, 2016, Dr. Mark Shrimpton (NRESi/UNBC) presented to an audience of approximately 40 people at the LIDO theatre in Fort St John on three species of fish in the Williston Reservoir. The final speaker in the PW-FWCP sponsored lectures was Dr. Karen Kidd from the University of New Brunswick. Dr. Kidd spoke on May 21, 2016 about mercury in fish to an audience of over 60 at the Prince George, UNBC campus.

NRESi Awards

In past years, NRESi has recognized members who have made valuable research contributions over their career with the Distinguished Fellow award. With the support of an Awards Committee, NRESi reviewed the award characteristics and expanded its recognition to three awards, adding one that celebrates ongoing achievements of NRESi members and one that recognizes individuals and organizations in the community who has made a valuable research contribution in NRESi's thematic areas. This resulted in the three awards NRESi has today:

1. Distinguished Scholar - a NRESi member who has achieved any or a combination of the described criteria over the past 12 months (it is possible to receive this award more than once over a career)
2. Lifetime Achievement – a NRESi member who has achieved a combination criteria over the course of their career (both as NRESi members and, if appropriate, in previous positions/activities) and recipients are given a lifetime membership to NRESi
3. Community Advancement Award – an individual or organization from the broader community who has demonstrated achievement of any or a combination of the described criteria through their research and/or service and recipients or an identified representative from the recipient organization is given a lifetime membership to NRESi

Further information, nomination guidelines, and criteria can be found on NRESi's website (http://www.unbc.ca/nres-institute/special-events-activities).

This year, NRESi presented six awards to deserving researchers in the NRESi community. The Distinguished Scholar Award was presented to Drs. Ellen Pettigrew and Phil Owens for their work on the Mount Polley mine tailings pond disaster. The Lifetime Achievement Award was presented to Dr. Lito Arocena for his contributions to collaborative interdisciplinary research at UNBC. Unfortunately Lito was not able to attend the ceremony due to an illness to which he has since succumbed. His son Pong accepted the award on his father's behalf. The Community Advancement Award was awarded to Drs. Catherine Nolin, Roy Rea, and Sarah Boyd. Catherine for her efforts with field schools in Guatemala and Peru, Roy for his work on the intensive two week "Field applications in resource management course", and Sarah for her work as the coordinator of the PG-PIRG.

Susan Stevenson Scholarship Fund

A dedicated NRESi member and UNBC adjunct professor, Dr. Susan Stevenson, passed away in August 2014. In honour of her contribution and memory, NRESi set up the Susan Stevenson scholarship fund. Thanks to generous donations from the NRESi community, as well as Susan's family and her personal networks, the scholarship has achieved its goal of raising $15,000. Candidate criteria and the decision making process have been put in place to award the annual $1000 student scholarship. The award is available, on a one time basis, to full or part time female graduate student demonstrating satisfactory academic standing and enrolled in either the Masters (NRES) or PhD (NRES) degree programs with a research emphasis in one or more of: wildlife ecology, plant biology, forest ecology, or innovative silvicultural systems and

practices that emphasize wildlife management and biodiversity objectives.

Publication Series

Dr. Art Fredeen has been the Editor for the NRESi publications series since their inception. In the past, NRESi had two publication series that NRESi members and NRES graduate students could contribute to:

1. **NRESi Occasional Papers** are peer-reviewed publications of papers and symposia sponsored or produced by members of the Institute. They provide an outlet for position, idea, concept, and opinion oriented papers.
2. **NRESi Research Extension Notes** are peer-reviewed publications of the research findings of NRESi members and of graduate students in the NRES Graduate Program. This series is intended to provide an outlet through which Institute members can make their research findings available to a non-technical audience.

In 2014-2015, it was identified that there are times where reports are not broadly available, but have useful information and results. To provide a venue for to make this data accessible, NRESi created the Technical Report Series:

3. **NRESi Technical Reports** are comprehensive, but not peer-reviewed final reports of research projects. They contain results relevant to the region and the broader research community. This publication series creates an opportunity for NRESi members to make their research project results that would otherwise not be published or available either in part or in whole.

More information about the awards and the guidelines are found on NRESi's website (http://www.unbc.ca/nres-institute/publication-series). In addition, NRESi worked with UNBC's library to make the articles available to a wider network, by posting all publications to UNBC's online databases. Past and future reports will now available and more readily searchable.

One new publication was added to the NRESi publication series this year:

1. Research Extension Note: LaZerte, S.E., H. Slabbekroon, and K.A. Otter. 2016. Sounds of the city: The effects of noise on communication in mountain and black-capped chickadees. Natural Resources and Environmental Studies Institute. Research Extension Note No. 10, University of Northern British Columbia, Prince George, B.C., Canada.

Each year, NRESi also presents an award for a Research Extension Note written by a NRES graduate student. This is awarded during the NRES Graduate Student Icebreaker event held in September. This award was not presented in 2015-16.

Budget Report

Revenues for the 2015-2016 fiscal year were derived from overhead on NRESi and member projects, and a grant from Peace Fish and Wildlife Compensation Fund.

NRESi provided financial contributions to a number of events and activities throughout the year that it organized or help to organize:

- Annual Lecture, NRESi member and special invitation dinner and poster session, travel for a special lecturer, reception, and compensation for webcasting
- Undergraduate thesis presentation day and refreshment costs
- Graduate Icebreaker presentation, poster session, and travel for a special lecturer
- Special guest lecture presentations
- Colloquium series – assistance for travel for a presenter who participated in NRESi's colloquium series, advertising costs, compensation for allowing Livestreaming and Blackboard Collaborate

NRESi also transferred $200,000 to the NRESi Endowment Fund. Our year-end closing balance was $288,338. The financial situation for NRESi is reasonably sound. However, expenditures in 2015-16 exceeded revenues by $53,793 (Table 5).

Table 5. NRESi operating budget (30181): Summary for FY 2015-2016.

Opening Balance (April 2015)		$552,315
Revenue: Research Overhead	$9,835	
Total Revenues (FY 15-16)		$9,835
Expenditure: Transfer to Endowment		$200,000
Expenditure: Salaries		$53,695
Expenditures: Course Buyout		$11,120
Expenditures: Honoraria		$400.00
Expenditures: Event Expenses		$3426
Expenditures: Supplies- Office		$376
Expenditures: Travel Speakers		$2,693
Expenditures: Computer		$2,000
Total Expenditures		$ 273,710
Year End Balance (March 2015)		$ 288,440

Contributions from the Biodiversity Monitoring and Assessment Program (BMAP) stopped in 2015. Beyond 2015, the ongoing revenue stream for the institute will derive mainly from the reallocation of research overhead by members, which totaled $9,835 in 2015/2016, significantly lower than anticipated. It is thus important for NRESi to work towards new funding

opportunities and projects that can continue to move ahead the goals and objectives of its members, while also having financial benefit back to NRESi. Work continues to identify project interests and opportunities that could link together members, as well as work with UNBC's Development Office to identify potential foundations whose interest align with NRESi. In the meantime, NRESi will be drawing down our reserves to continue salary support for the Research Manager position. The Research Manager position has been reduced from a full-time position to a part-time position starting in November 2015.

NRESi has three additional endowments: (a) Canfor Endowment, (b) NRESi Endowment, and, (c) Linnea Fund. The main endowment (70105) is the Northwood/Canfor endowment, originally from Northwood Pulp & Paper for the use of the Dean of the Faculty of Natural Resources and Environmental Studies. When NRESi was developed, NRESi's Director at the time met with Canfor and a decision was made to use the endowment to fund the NRESi Annual Lecture and other special events consistent with the original intent of the endowment. In years when the return on the endowment has been low (or even negative), NRESi's operating budget (30181-9918) has been used to fund such activities in order to maintain an adequate balance in the endowment. This year, the Canfor endowment lost $4,118 during 2015-2016 (Table 6). The 'NRESi endowment' was established several years ago at the suggestion of the Allan Berezny (then head of UNBC fund raising). It was created with a donation from Dr. Art Fredeen and exists to receive future donations as they are made. Art has made additional contributions to this endowment and other NRESi members have also donated income from contracts to this account. This is a true endowment fund in that only the interest/revenues from this account can be spent. This past year, $200,000 was transferred from the NRESi operating fund to the NRESi Endowment. The 'NRESi Endowment' (46055) has an FY 2015-2016 year-end balance of $202,904 (Table 7). The Linnea fund was created several years ago by Drs. Art Fredeen, Kathy Lewis, and Hugues Massicotte from remuneration they had received for doing some research-related work. The intent was to grow this general interest fund and then support students through scholarships or other means. NRESi has administrative control over this fund. An amount of $4,000 was transferred from this fund to the Susan Stevenson Scholarship fund. The Linnaea Fund (34164) has an FY 2015-16 year-end balance of $350. (Table 8). The Linnaea Fund permits the spending of the principle to fund activities, while the Canfor and NRESi Endowments are traditional endowments in which only a portion of the earnings can be used.

Table 6. Northwood/Canfor endowment (70105): year-end budget statement for FY 2015-2016.

Opening Balance (April 2015)		$120,188
Revenue: Interest	- $4,118	
Total Revenues (FY 15-16)		-$ 4,188
Expenditure:	$3,538	
Total Expenditures		$3,538
Year End Balance (March 2016)		$112,531

Table 7. NRESi Endowment (46055): year-end budget statement for FY 2015-2016.

Opening Balance (April 2015)		$8,166
Revenue: Interest	- $5,150	
Revenue: Donations	$253	
Revenue: Transfer from Operating Fund	$200,000	
Total Revenues (FY 15-16)		$195,103
Total Expenditures (overhead)		$415
Year End Balance (March 2015)		$202,584

Table 8. Linnaea Fund (34164): year-end budget statement for FY 2015-2016.

Opening Balance (April 2015)		$4,350
Total Revenues (FY 15-16)		$0
Expenditure: Transfer to S. Stevenson Scholarship	$4,000	
Total Expenditures		$4,000
Year End Balance (March 2016)		$ 350

The Funds held by NRESi in combination decreased by $81,216 during 2015-2016 for a combined total of 603,803 (Table 9).

Capital assets of the institute include a computer. A new laptop was purchased in 2015 for $2000.

Table 9. Summary of NRESi Fund totals and change during FY 2015-2016.

NRESi Funds	2015-2016 FY End	Change during FY
30181	$288,338	-$ 263,977
70105	$112,531	-$ 7,657
46055	$202,584	$ 194,418
34164	$350	-$ 4,000
Totals	$603,803	-$ 81,216

Natural Resources & Environmental Studies Institute

2015-2016 Workplan

This workplan describes how NRESi's 2016-2017 activities will build on the momentum of the previous fiscal year and further the objectives of NRESi through engagement, identification of new project opportunities, funders and partners, as well as providing networking across members and the community. Further to this, it will also describe how NRESi will work with other research institutes and organizations at UNBC and its partners on some key initiatives.

The focus of activities for the new year are described under five broad headings, which includes a purpose, description, and desired outcomes for each. A proposed 2016-2017 budget can be found at the end of this report, outlining anticipated expenditures for the coming year.

Project Descriptions

A. Partnerships & Project Development

Purpose: To develop partnerships and project opportunities to support the research goals of NRESi members and address the issues of UNBC's community through solutions-based approaches and projects.

Description of Activities:

NRESi will be working to identify project and funding opportunities on behalf of its members and NRESi more broadly, working together with the Development Office and the Office of Research. Work on this began in 2014-2015 by exploring possible foundations that have linkages to NRESi's themes and the research interests of its members. Further work will be undertaken to create project themes that could be included in letters of interest to funders and to begin to build relationships. There will be a conscious effort to develop initiatives spanning across a broad set of research interests and thus engaging multiple members on collaborative projects, being as inclusive as possible and/or identifying multiple projects where researchers having diverse interests can engage. This exercise will also explore the opportunity to create projects that are applicable to multiple funding agencies or foundations and/or developing project ideas will be tailored to specific needs of individual funders.

Information and suggestions collected from NRESi members through the membership survey exercise will assist in developing potential project themes, both to their own work, but also to the needs of northern BC and beyond. Opportunities to engage with the other UNBC research institutes, in addition to the cumulative impacts work currently underway, will also be considered in this exercise.

Exploring project opportunities will be approached in two ways: (a) collaboratively with NRESi members by engaging them to help develop project themes, and, (b) developing topics of broad interest and research needs, connecting these ideas to the membership through research clusters to improve grant success. Not only is the intent to build the research capacity, scope and the work of NRESi members, new projects would provide access to additional resources, exposure to external stakeholders of the value, benefit, and opportunities working with NRESi can provide, as well as better solidify UNBC's standing as a small, research-intensive university.

Desired Outcomes:

- Creation of project ideas that engage multiple NRESi members in collaborative research, being as inclusive as possible to members who wish to participate on one or more initiative, building on suggestions heard through NRESi's survey exercise with members
- Identification, research into and engagement of potential funders that may have interest in the research and areas NRESi members' expertise, building relationships that could lead to funding partnerships to move forward mutual goals and objectives
- Work with the Development Office and the Office of Research to identify additional opportunities and build on existing networks that could further contribute to NRESi member research
- Identify opportunities to work with other UNBC research institutes, in addition to the continued work of the Cumulative Impacts Research Consortium (CIRC)
- Combination of reactive and proactive research project opportunities realized with diverse stakeholders and partners from outside of UNBC, engaging a diverse set of NRESi members and expertise, identifying needs and resulting solutions
- Continued focus on developing interdisciplinary research approaches (e.g. making linkages across disciplines and addressing complex issues)
- Collaborative partnership development and fundraising processes with other UNBC departments and Institutes are developed and implemented and aligned with the efforts of individual NRESi members

B. Service to NRESi Members and UNBC

Purpose: To maintain service delivery and networking between NRESi members and other UNBC departments for knowledge sharing, celebrating successes, building on each other's strengths, and reducing duplication of efforts where possible.

Description of Activities:

NRESi represents 70 researchers, with the majority being faculty or adjunct professors at UNBC, plus some active researchers based at external organizations. NRESi undertakes the role of

providing opportunities to build linkages across departments and research communities through networking and collaborative events and initiatives. It works on behalf of its members to explore partnership opportunities, as well as representing and promoting the work of its members. NRESi also engages appropriate groups within UNBC's administration (e.g. Office of Research and Development Office), to provide a linkage and communications between these groups on behalf of its members and explore project opportunities.

NRESi works to be UNBC's public face for environmental issues and knowledge. Conferences, workshops, and meetings are attended where there are opportunities to learn and further the goals and objectives of NRESi and promote the Institute, its members, and the NRES Graduate Program. NRESi also provides the venue for sharing information and reports prepared by its members through the lectures it organizes, its Publication Series, weekly newsletter, and through social media.

NRESi will continue to celebrate the achievements of its members and those in the natural resources research community. This will continue to be achieved in a number of ways. One example is providing NRESi's bi-weekly newsletter as a venue for sharing new publications, awards NRESi members have received, conference presentations and other announcements. NRESi also has its awards program that is presented each fall. The awards include: (a) Lifetime Achievement for career accomplishments, (b) Distinguished Scholar for project related accomplishments, and, (c) Community Advancement for individuals and organizations outside of NRESi's membership, but part of its network and making valuable contributions to natural resource research.

NRESi will continue to build opportunities for supporting its members' research and expertise. This includes investigating how to best make the expertise of NRESi members readily available to other members, potential partners and the broader community. It could also mean further accessibility of NRESi member data and information, such as continuing to explore tools for data sharing.

Desired Outcomes:

- Representation of NRESi members in partnership discussions, public venues and identifying ways to support members through projects and potential funders
- Represent NRESi members in discussions with UNBC administration for supporting the building of external relationships and engagement for members where appropriate
- Sharing of information to NRESi members about potential funding and/or partnership opportunities where possible and open doors for members to build new relationships
- Provide a venue to celebrate successes of NRESi's members within the membership, as well as to UNBC and the wider community, through sharing of accomplishments, media and other recognition in the newsletter, social, media, and other appropriate venues
- Summary of member expertise that is shared within the membership, other Research Institutes, and UNBC's Development and External Relations Offices, as well as the Office of Research, to better understand the capacity and opportunity to engage on different topics

C. NRESi Special Projects & Events

Purpose: To engage NRESi members, UNBC, and the broader community in events and activities on relevant topics of interest, providing the opportunity for sharing knowledge and a forum for discussion.

Description of Activities:

One of the main roles and functions of NRESi is to create opportunities for sharing knowledge, as well as networking across its membership and the broader research and natural resource community. A number of NRESi venues exist for this, including the weekly colloquium lecture series, the NRES Graduate Student Icebreaker, Annual Lecture and poster session, as well as others events and activities that include NRESi members and NRES graduate students. It also actively works to identify opportunities for relevant topics of discussion and projects that NRESi members can engage in, to feed their expertise into dialogues where experience and knowledge are valuable contributions. NRESi will continue to identify areas where it can support knowledge sharing, organize events for dialogue and discussion, and provide promotion within its membership and broader network of activities to create an ongoing culture of learning from each other.

NRESi received conditional approval of its proposal to extend its ongoing relationship with the Peace Fish and Wildlife Compensation Program for a lecture series in 2016-2017. This year NRESi will be organizing three lectures, one in Prince George during the usual spring timeslot, plus two additional presentations in the fall and winter in a northeastern BC community.

NRESi received conditional approval for year one of a three year proposal to the Peace Fish and Wildlife Compensation Program for the first year of a research project to study and assess the nutrient dynamics and complex web of interactions between Kokanee, stream-living macro-invertebrates (Aquatic insects), and the surrounding riparian zone (lichen communities) as a result of the introduction of Kokanee into the Williston Reservoir. First year of this project will involve a survey of local residents and guide/outfitters as well as initial field assessments of Kokanee, aquatic invertebrates, and riparian lichens.

Desired Outcomes:

- NRESi events and joint initiatives are continued, capitalizing on collaborative opportunities with other Institutes and partners where appropriate
- Continued support and planning of NRESi activities and networking opportunities between members and with the broader research, natural resource and environmental studies community
- Develop and/or fill the role of representing NRESi members in discussions with UNBC and external agencies.

D. Communications

Purpose: To facilitate communication within the membership, to UNBC and external stakeholders, governments, communities, and other partners.

Description of Activities:

NRESi uses a number of different venues to share information across its network. This includes external communications efforts, such as through the bi-weekly newsletter, social media feeds, posters in UNBC hallways about upcoming events, as well as through email announcements. NRESi also works to provide information about opportunities to its membership list and engaging researchers where possible to do so.

NRESi is in the process of updating its website; the content itself has been revised, with further plans for this year to streamline its structure and make it more user-friendly. In cooperation with the UNBC Communications and IT departments, NRESi is also creating a new video archive website for its past colloquium presentations and special lectures. This new site will have a search function where videos can be queried based on topic, keywords (in the title, abstract), date and presenter. Further to this, videos will also be uploaded to YouTube to make them easier to be searched through broad web-searches. NRESi will be continuing to post information about upcoming events to UNBC's Events webpage, to create broader distribution of activities.

Desired Outcomes:

- NRESi's weekly newsletter and current social media sites, and other communications tools used to provide a venue to share information to wide audiences and allow for networking within the research, natural resource, and environmental studies community, as well as an opportunity to create a dialogue where possible on current issues, activities and opportunities that could be built upon
- Improvements to NRESi's web presence by making updates to allow information to be streamlined, found easier and in a more interactive fashion

E. Governance & Administration

Purpose: To develop a future direction and organizational approach that works to meet the needs of NRESi and its members

Description of Activities:

NRESi identified and invited candidates that would provide beneficial, insightful and valuable advice to NRESi to its external Advisory Panel inaugural meeting. This includes those who have experience and/or insights that will help to move forward the goals and objectives of NRESi, as well as helping to create new research and strategic opportunities to support NRESi members, in addition to meeting needs of northern BC and beyond. An initial meeting with the Advisory committee is scheduled for June 15, 2016 to begin the dialogue.

Tasks required for organizational management will continue, such as holding an Annual General Meeting, developing an Annual Report of the past year's activities, summarizing a financial report and ongoing monitoring, creating a workplan for the coming year, monthly Steering Committee meetings, Advisory Panel meetings, and other administrative needs. The Steering Committee will continue to provide an important role in guiding the ongoing activities of NRESi, by providing support to the Director and Research Manager.

Desired Outcomes:

- Conduct at least one initial discussion with NRESi's Advisory Panel to provide insights to NRESi opportunities
- Administration requirements needed to ensure appropriate management of the organization, including but not limited to: ongoing meetings and engagement from the Steering Committee, reporting, budgeting, project and organizational planning, etc.

NRESi Operating Budget Report 2016

	Actual 2015-2016	Projected 2016-2017
Opening Balance	**$552,315.00**	**$288,440.00**
Revenue		
Research Grant Overhead	$9,835.00	$15,000.00
Salary Recovery (FWCP)		$10,966.18
Expenditures*		
Transfer to Endowment	$200,000.00	
Salaries	$53,695.00	$47,520.10
Course buyout	$11,120.00	$11,120.00
Honoraria	$400.00	$400.00
Event Expenses	$3,426.00	$3,000.00
Supplies-Office	$376.00	$300.00
Travel – Speakers	$2,693.00	$2,000.00
Computer	$2,000.00	
Closing Balance	**$288,440.00**	**$250,026.08**

**Excluding sponsored speaker series*