N-EAT
Greenhouse in Klemtu, BC

Plants for the project
Photos by: Nasra Mire
The Faculty of Environment’s Pacific Water Research Centre aims to promote and mobilize research that addresses water issues on scales ranging from local to global. Included below are some featured projects.

The UN-funded project on Women, Water Security and Peacebuilding Nexus in the Arab Region was successfully completed in November 2018. A major activity was organizing a symposium in Beirut, Lebanon in collaboration with the United Nations (8-9 May 2018). The resulting policy brief has been widely disseminated.

A three-year project is investigating the nexus between Water, Energy, and Food for North America, including links to climate change and energy futures. The funding provided by the Willow Grove Foundations has made it possible to engage a full-time Research Associate for this project. The project team is interfacing with a number of research groups at SFU, notably the research team led by Professor Mark Jaccard.

The International Water Decade Alliance has continued to gain momentum, particularly through inclusion of two Australian universities. A key activity in the reporting period was a seminar organized at the Canadian Science Policy Conference (see page 8). With the inclusion of the Institute for Water Innovation at the University of Toronto, IWDA now has 25 organizations listed as its members.

A new project entitled Nutrition through Engagement, and Agricultural Technologies (N-EAT) was initiated in Fall 2018, which focuses on First Nations communities in Canada and rural communities in East Africa. It aims to enhance community self-reliance on sustainable, nutritious and organic foods, while ensuring sustainable access to water and energy. It builds on and expands local and traditional knowledge in these communities and leads to the use of best practices. It seeks to ensure that these communities are resilient against impacts of climate change and other related environmental and social stresses.

An ongoing project: Engaging the Community to Build Flood Resistant Rain Gardens. The focus of the project is to mobilize the community to learn about why and how rain gardens work to build flood resilience in residential, neighbourhood and community scales. This demonstration project, involving the three North Shore municipalities, engages local citizens, local government, NGOs, university researchers and students in shared learning about the role of rain gardens in improving water quality and managing storm water.

The Integrated Climate Action for BC Communities Initiative (ICABCCI) led by ACT (the Adaptation to Climate Change Team), is focused on integrating climate change strategies to reduce greenhouse gas emissions (mitigation) and vulnerability to climate change impacts (adaptation). Local governments and First Nations are working with ACT to build tools and resources designed to advance this approach, streamlining resources, increasing the effectiveness of climate action, and achieving a variety of co-benefits.
Under PWRC lead, a proposal for *Costing Floods and Other Extreme Events in Canada, Mexico and USA* was formally submitted to the Commission for Environmental Cooperation. The 2-year, C$580,000 project was approved at the time of this report’s printing.

A joint proposal with Griffith University, Australia, entitled SDG Water Solutions was approved by SFU. The project aims to develop a joint research program between SFU and Griffith University to assess the achievement of the freshwater targets related to Sustainable Development Goals (SDGs) in selected countries and contribute towards addressing the knowledge gaps.

The Real Estate Foundation of British Columbia approved a three-year, $750,000 grant for ACT’s Integrated Climate Action for BC Communities Initiative (ICABCCI).
The United Nations General Assembly (UNGA) adopted a resolution in December 2016 to designate a new decade focused on global water challenges. In 2018, SFU launched the International Water Decade Alliance (IWDA) a Canada-wide alliance of research institutions and related organizations to jointly host the secretariat for the International Decade for Action “Water for Sustainable Development.”

Hosting such a global mechanism in Canada helps create new international research networks, capitalizing on the strength of Canadian water researchers and bringing together operating funds for the secretariat from multiple sources, while attracting new research funds. This new decade aligns with some of the highest priorities for Canada’s foreign policy and development agenda, namely, Feminist International Assistance Policy, climate change adaptation and enhanced resilience worldwide, support for implementation of the Sustainable Development Goals (SDGs), and upholding human rights worldwide (which include access to safe water and adequate sanitation). A number of Australian institutes have also joined the IWDA, given the similarities in Canadian and Australian policy objectives around water-related SDGs.

While a leadership role for Canada allows it to engage in water security issues around the world, it will also facilitate the implementation of the water-related SDGs within Canada and particularly focus on drinking water challenges for Canadian indigenous communities.
Serves as a platform for global dialogue on water challenges that facilitates exchange of ideas, experiences, and innovative concepts. It generates new knowledge and synthesizes existing scientific research to provide evidence-based guidance to the UN Member States.

Supports the UN Member States through development of capacity of individuals and institutions to understand and respond to their respective water challenges.

Creates networks of individuals and organizations that are committed to achieving universal water security, including development of communities of practice.

Engages and inspires the general public through awareness raising about global, regional, national, and local water challenges, and provides tools and means for responding to water challenges.

Assembly of First Nations • Aurora College • Australian Rivers Institute, Griffith University • Canadian Rivers Institute, University of New Brunswick • Canadian Water Resources Association • Centre for Indigenous Environmental Resources, Winnipeg • Council of the Great Lakes Region • Environmental Sustainability Research Centre, Brock University • Forum for Leadership on Water (FLOW) • Global Water Institute, Carleton University • Global Water Institute, University of New South Wales • Institute for Water Innovation, University of Toronto • International Institute for Sustainable Development • Laurier Institute of Water Science, Wilfred Laurier University • POLIS Project on Ecological Governance, University of Victoria • Program on Water Governance, University of British Columbia • Ryerson Urban Water, Ryerson University • the Water Institute, University of Waterloo • Trottier Institute for Sustainability in Engineering and Design, McGill University

Water Canada serves as the media partner.
PUBLIC OUTREACH AND COMMUNITY ENGAGEMENT

BRAINSTORMING FOR CANADA’S NATIONAL WATER VISION
NOVEMBER 9, 2018
This special symposium was organized as part of the Canadian Science Policy Conference in Ottawa (9 Nov 2018). This symposium was an activity of the International Water Decade Alliance, organized as a collaboration between PWRC and Ryerson Urban Water.

INNOVATE: NEW APPROACHES TO CANADIAN INTERNATIONAL COOPERATION
JUNE 6, 2018
This two-day symposium and DevLab brought together researchers, entrepreneurs, NGOs, funders, social innovators and technology experts to explore how social innovation and new technologies can enhance the delivery of Canadian aid, transform global development and fuel innovation in support of partnerships for sustainable development.

TO CATCH A FALLING SKY
NOVEMBER 1, 2018
A seminar series entitled To Catch a Falling Sky was initiated in collaboration with Science World. It is a conversation series that explores the challenges and solutions for water, energy, and food resources. Four to five seminars each year will be held at the Science World. The first seminar in the series, entitled “A Climate of Change” was organized on 1 November 2018; Hon. George Heyman (Minister for the Environment and Climate Change Strategy) was the keynote speaker. Videos of these discussions can be found at www.sfu.ca/fenv/events.
The PWRC hosts seminars open to students, staff and faculty tackling a broad range of issues featuring a diversity of expertise.

**SEMINAR SERIES**

**RAIN CITY STRATEGY: MAKING GREEN INFRASTRUCTURE MAINSTREAM IN VANCOUVER**

**DECEMBER 12, 2018**

Melina Scholefield, Manager, Green Infrastructure Implementation, City of Vancouver

**MARIJUANA, WATER RIGHTS AND CALIFORNIA’S DROUGHT**

**MARCH 27, 2018**

Ms. Gita Kapahi, Director of the Office of Public Participation, State Water Resources Control Board, California

**ACHIEVING RESILIENCE VIA GREEN INFRASTRUCTURE: CONNECTING ECOSYSTEM HEALTH AND CLIMATE CHANGE**

**NOVEMBER 9, 2018**

Deborah Harford, Executive Director, ACT (Adaptation to Climate Change Team), SFU Faculty of Environment

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The PWRC provides experiential learning and volunteer opportunities for students. It also fosters leadership to create positive change. Here are some of the ways the Centre engages with students.

**WORLD WATER DAY**

**MARCH 22, 2018**

This event was led by students and included a documentary on water management (‘Water Blues, Green Solutions’), followed by a panel discussion. Students also organized an online photography competition.

**SCIENCE COMMUNICATIONS TRAINING**

The focus of this training effort was to develop competencies as science communicators and for graduate students to discover ways to make their work relevant to policy advisors and the public. Graduate students from Simon Fraser University, University of British Columbia and University of Victoria attended.

**BAN THE BOTTLE**

Ban the Bottle Initiative seeks to eliminate the sale of bottled water on SFU Burnaby campus. Led by a group of graduate and undergraduate students, the initiative has engaged in data collection on bottled water usage at SFU, developed public awareness information, and engaged students across the campus. The group has also engaged with SFU Sustainability Office and the SFU procurement team.
MEMBERS

ZAFA ADEEL
Executive Director, Pacific Water Research Centre and Professor of Professional Practice, School of Resource and Environmental Management

NASTARAN ARIANPOO
Willow Grove Research Associate, Pacific Water Research Centre

JOANNA ASHWORTH
Director of Professional Programs and Partnerships and Research Associate/Faculty Member, Centre for Sustainable Community Development

CLIFFORD ATLEO
Assistant Professor, School of Resource and Environmental Management

MAJID BAHRAMI
Canada Research Chair in Alternative Energy Conversion Systems and Professor, School of Mechatronic Systems Engineering

JENN BURT
PhD Student, School of Resource and Environmental Management. Mechanisms driving high latitude kelp forest dynamics from local to regional scales

RYAN BRADLEY
Post Doctoral Fellow, Geography

TRACY BRENNAND
Professor/Chair, Department of Geography

JOHN CLAGUE
Professor Emeritus, Department of Earth Sciences

SEAN COX
Associate Professor and Chair, School of Resource and Environmental Management

LIZZIE DINGLE
Post-Doctoral Fellow, Geography

GWENN FLOWERS
Associate Professor, Department of Earth Sciences

DAWEN GAO
Adjunct Professor, PWRC and Professor of Environmental Science and Engineering, Harbin Institute of Technology, China

DEBORAH HARFORD
Executive Director, ACT (Adaptation to Climate Change Team), SFU Faculty of Environment

NICHOLAS HEDLEY
Associate Professor, Department of Geography

MARK JACCARD
Professor, School of Resource and Environmental Management

MARIA KAWAHARA
Master’s student in Resource and Environmental Management working with Dr. Zafar Adeeel.

DUNCAN KNOWLER
Associate Professor, School of Resource and Environmental Management

HANNAH KOBLUK
Master’s student in Resource and Environmental Management, working with Dr. Anne Salomon.

KAREN KOFELD
Canada Research Chair (II) in Climate Resource and Global Change, and Professor, School of Resource and Environmental Management

KEN LERTZMAN
Professor, School of Resource and Environmental Management

LANCE LESACK
Professor, Geography and Biological Sciences

MAUREEN MALONEY
Professor, School of Public Policy

SEAN MARKEY
Professor, School of Resource and Environmental Management

JOHN WELCH
Director of Graduate Program in Heritage Resource Management and Professor, Department of Archaeology and School of Resource and Environmental Management

KIRSTEN ZICKFELD
Associate Professor, Department of Geography

ANDREW WRIGHT
Adjunct Professor, Pacific Water Research Centre