

PART 4 – EQUITY, DIVERSITY AND INCLUSION (EDI)

Preface: The GWF governance structure oversee program objectives and has encouraged partner institution to meet its EDI targets. Fortunately, all institutions have committed institutional support for EDI through implementation of policies and programs (see [USask](#), [UWaterloo](#), [McMaster](#), [Wilfrid Laurier](#) for details). These institutions ensure that information about ongoing EDI work is communicated with students, faculty, and staff engaged in GWF. To align with institutional targets, GWF’s SMC decided to meet the 2029 equity targets set by the Canada Research Chairs (CRC) program (i.e. women 50.9%, persons with disability 7.5%, visible minority 22%, Indigenous People 4.9%) by 2023. To advise on strategies to meet these targets and to champion EDI advances throughout GWF, the SMC appointed an EDI Specialist in summer 2020. Further, both USask and Wilfrid Laurier are institutional members of the [Dimensions Pilot Program](#) (Canada). As per the 2018 CFREF Self ID reporting, GWF has 40.6% women, 1.4% persons with a disability (7.3% preferred not to indicate), 19.5% visible minority (11.1% preferred not to indicate). Self-ID data on Indigenous scholars is unavailable at this time, but there is a substantial number of Indigenous faculty and HQP in the program due to implementation of the GWF Indigenous water research strategy. For details see *Figure 2.2, Institutional Strategy report*.

Early on, GWF recognized some of the barriers to achieving EDI targets, including a lack of visible role models and diversity within leadership positions; unconscious and implicit biases within the research environment; narrow standards of research excellence for HQP; lack of supports for Early Career Researchers; barriers to participation in field research; and an overburdening of scholars who may self-identify in one of the four equity-seeking categories with administrative and service responsibilities. The following sections outline how GWF has instituted strategies to address systemic barriers.

Best practices implemented related to EDI, such as mentoring and career development.

SMC felt it was crucial to first develop an understanding of the needs of HQP affiliated with the program, and so conducted a survey to identify these needs. The survey results suggested high priority for new mentorship programs, networking events, conferences, lecture series, seminars, panels, training and capacity building, social events, and comfortable common space. Given the concomitant needs to address professional development of graduate students and postdoctoral fellows, we developed a joint mentoring and career development strategy. Some of the opportunities available to GWF scholars in this strategy include access to training and mentorship such as: co-authorship with a senior team member; creating a “research brand” and demystifying academic career paths; individualized and appropriate mentorship opportunities; presenting at international conferences; speaker invitations; organising session at national conferences; fieldwork and research trips; and international networking. Financial resources are dedicated to ensure the feasibility of conference and research travel for students and postdoctoral fellows, mitigating socioeconomic barriers to active participation. The *On The Land Training* activities engage youth and HQP in water activities from the perspective of Indigenous and western sciences.

The [GWF Women+Water Lecture Series](#) explores gendered water-related impacts, and challenges facing women who work in water research in Canada and internationally. This series facilitates active discussion tailored to encouraging and supporting recruitment, retention, and mentorship of women in water research, as well as the gendered dimensions of water research impacts. It is also an active learning opportunity for men, transgender, and gender non-conforming allies to learn more about the challenges and opportunities facing women as producers and consumers of knowledge on a broad range of topics related to water. GWF also hosts a yearly [Distinguished Lecture Series](#) (DLS) to bring 10 world-leading scientists for lectures, tutorials and workshops, providing opportunities to understand breakthroughs in various areas of water security from a global perspective and HQP networking with international leaders.

In order to provide peer support programs, an avenue for social events, and comfortable common space, the SMC instituted the [GWF Young Professionals](#) (GWF-YP). The GWF-YP executive are also responsible to leverage the capacity of existing groups and build larger communities of young water researchers at each of the partner universities. These partnerships are instrumental to the success of the

GWF-YP program, including celebrating student success, advertising upcoming events, and administering travel bursaries. During the *GWF Annual Open Science Meeting*, The GWF-YP, organize events geared towards professional development and career advancement, social networking lightning talks, and poster presentations. In addition, the four chapter chairs (see *Part-2 Section a Institutional Strategy Report*) organize events for *World Water Day* at respective universities including keynote lectures, research showcase, poster presentations, career fairs, community engagement, and screening of special feature films related to water. They organise events at the annual Canadian Geophysical Union meeting to mentor career development with the Young Hydrologic Society. Its influence reached beyond academia and also assisted ECCC's Water Survey of Canada in establishing a women in water technician hiring campaign.

Changes made to the CFREF governance structure to consider the EDI objectives.

GWF's governance structure includes checks and balances to reduce unconscious bias in the decision making process and address systemic barriers to inclusion. GWF role-models equity through the membership of its Oversight Committee (A woman PI & 75% of members identify as women); Strategic Management Committee (45% women, including one Indigenous scholar and one EDI Champion); User Advisory Panel (41% women, including 3 Indigenous scholars); Pillars 1-2 projects (38% projects led by women and visible minority PIs), Pillar 3 project (42% projects are led by women and visible minority including Indigenous PIs); and Indigenous community co-led projects (100% of projects co-led by Indigenous community leaders and 67% projects co-led by women PIs).

The SMC recognized the need to ensure its EDI goals are met by GWF. Consequently, SMC member Prof. Corinne Schuster-Wallace was appointed as GWF Associate Director and also as the EDI Champion. An EDI Specialist was hired in summer 2020 to assist GWF in achieving EDI goals.

Measures taken to remove or mitigate systemic barriers.

In recognizing that systemic barriers exist, GWF has proactively addressed these barriers and set model examples of good practice at all levels of leadership. Consequently, GWF has demonstrated an intersectional approach that considers the complex ways in which students, faculty, and staff may be marginalized as a result of racism, colonialism, patriarchy, heteronormativity, ableism, and more.

GWF has recognized the significance of Traditional Knowledge and respecting Indigenous community participation through co-creation and co-development of research projects. After extensive consultation, GWF created an *Indigenous community water research strategy*, which was used as a basis for a request for proposal and ultimately the funding of six *Indigenous community co-led projects*. These projects are advancing understanding of traditional and western knowledge and work together to research better water governance, water and food security, sediment restoration, water security, climate change, and water-related human and ecosystem health in Indigenous communities (see *Part-1 Science Strategy* and *Part-2 Institutional Strategy reports for details*).

Hiring Transparency – To include diverse perspectives at all levels in GWF and ensure that the best candidates (faculty and HQP) are selected to join the program, job advertisements are written in gender neutral language; recruitment committees are made aware of EDI principles and unconscious bias training. Selection processes and ranking criteria are established before reviewing applications. Faculty postings indicate that career interruptions due to parental leave, family care, extended illness, or community responsibilities do not negatively influence the assessment of a candidate's research productivity. GWF partners include EDI and Indigenousization statements including land acknowledgements and relationships with Indigenous Communities in job advertisements.

EDI training or other EDI activities undertaken

GWF has taken a leadership role in training faculty and students in Indigenous ways of knowing. The first GWF *Annual Science Meeting in 2018* was co-organized by USask, McMaster University, and Six Nations of the Grand River. The Annual Science Meeting brought over 400 people from across Canada, the UN, WCRP, and Future Earth to attend the first national science meeting held on Indigenous governed territory. In 2019, Indigenous engagement was further supported when the *Annual Science Meeting* was hosted in

Saskatoon by USask and included events at the Wanuskewin Heritage Park where the cultural heritage of the site and region were featured. These events demonstrated GWF's commitment to Indigenization through inclusion of educational activities centred on Indigenous ways of knowing.

GWF partners are also committed to providing opportunities for graduate students to engage in EDI training. Dr. Sean Carey (McMaster), has supported graduate students in learning about Indigenous ways of knowing through the [CREATE for Water Security](#) Program (McMaster, Waterloo, USask). Dr. Corinne Schuster-Wallace and Dr. Andrea Rowe (USask) will support this program through an EDI virtual lecture in November of 2020. Dr. Jennifer Baltzer (Wilfrid Laurier) has invited the university Manager of the Student Centre for Equity, Diversity, and Inclusion, Dr. Eden Hennessey, to work with students in her lab to create training sessions specific to the EDI challenges faced by students in STEM.

How EDI has, and is, being considered?

As the GWF research program has solidified and the influence of GWF scientists has expanded globally (see *Section d Science Strategy report*), EDI has taken on a more expansive meaning within GWF. The GWF delegation of five to the World Meteorological Organisation's High Mountain Summit in November 2019 included two young women professionals, one of whom had a speaking role in front of representatives from 45 countries. GWF's 2019 delegation to the Arctic Council's Polar Earth System Prediction Workshop in Iceland was 50% women scientists. Water is universally important to people around the world, yet marginalised groups suffer most from the effects of water insecurity. GWF's internal approach to EDI is becoming increasingly connected to the differential impacts that barriers to inclusion have on global access to water. GWF's ongoing commitment to Indigenization is and will remain a top priority and a cornerstone of our approach to EDI. GWF will build on its success recruiting women and visible minority faculty. To ensure a global leadership role, GWF will support further inclusion of people with disabilities in water research, the experiences of Black People and other People of Colour, LGBTQ2S People, and more. GWF's EDI Specialist will support design and implementation of training and protocols that reflect a complex understanding of GBA+ analysis and other evidence-based approaches to EDI.

In the implementation of this large-scale, transformational and forward-thinking institutional strategy. The next chapter of EDI initiatives will take a practical approach to the implementation of a large-scale, transformational, and forward-thinking network strategy. The following activities have been identified as future opportunities to increase EDI within GWF: **Events Protocol:** Protocols for events that support in-person and virtual engagement and include wise practices for accessibility, catering, audio and visual accessibility, religious, and cultural inclusion. **Hiring Protocol:** Provide all candidates an inclusive recruitment experience that seamlessly integrates information about family and caregiving, access for people with disabilities, and more into the process. **Fieldwork Protocol:** Adapt EDI training to the specific needs of water researchers including support for people with disabilities, religious, and cultural inclusion in the field. **Research Protocol:** Develop awareness of data disaggregation and potential research impacts. **Case Studies:** Develop EDI case studies that address complex scenarios that may occur in the pursuit of EDI in water research including; urban and rural research, northern research, and international research. **Data Capture and Management:** Expand the breadth and depth of the EDI data collection in alignment with the Dimensions Pilot Project to support a more complex understanding of EDI in GWF. **Communication Strategy:** The GWF website has been updated (2020) to incorporate principles of accessible design. The launch of a research-based news hub, *Science Features*, for GWF members to share science, presents research outcomes in plain language to a broad audience. Canada 150 Research Chair Dr. Jay Famiglietti and the Walrus Lab launched the *Let's Talk About Water Podcast* that addresses complex water issues and provides access to research driven content in audio format, also accessible for people with visual impairments. **Water Leadership:** GWF is pioneering a vision of what it means to be an *outstanding water colleague* by supporting training and development opportunities the embed the principles of EDI in professional conduct and research and leadership practices for young professionals and emerging faculty in the water sciences.