

# University of Washington's Campus Sustainability Fund

## Organizational Development and Strategic Planning

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## **Abstract**

UW's Campus Sustainability Fund (CSF) has experienced substantial growth in its number of funded projects, and overall programmatic and management activity since its inception in 2010. In particular, a large percentage of its overall funding is allocated toward "Biological and Living Systems" projects that are long-term and require a high degree of ongoing management from CSF staff. In recent years the CSF has also made efforts to diversify its portfolio of projects and align with the UN's Sustainable Development Goals. To address related administrative, management, and programmatic needs, a strategic planning process was launched and adapted over a 2-year period. To guide the strategic planning process, various aspects of the CSF and other similar organizations were benchmarked and analyzed. Areas such as organizational structure, operations, and the diversification of the CSF's funded projects were identified as opportunities for development. While information on strategic planning and management within campus sustainability or "green" funds is limited, literature and documentation from similar organizations is cited to provide rationale for decision-making processes. Through the documentation of related steps toward creating a more robust organizational structure, other sustainability funds and similar organizations that face challenges with turnover and limited staff capacity may work toward efficiently envisioning and enacting their identified goals.

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## List of Acronyms and Abbreviations

**AASHE:** Association for the Advancement of Sustainability in Higher Education

**ASUW:** Associated Students of the University of Washington

**COE:** College of the Environment

**CSF:** Campus Sustainability Fund

**DEI:** Diversity, Equity, and Inclusion

**DI:** Deionized

**EPA:** Environmental Protection Agency

**FTE:** Full Time Equivalent

**FY:** Fiscal Year

**GSA:** Graduate Student Assistantship

**LOI:** Letter of Intent

**MEH:** Master of Environmental Horticulture

**MOA:** Memorandum of Agreement

**PM:** Preventative Maintenance

**RO:** Reverse Osmosis

**RSO:** Registered Student Organization

**SAF:** Services and Activities Fee

**SDG:** Sustainable Development Goal

**STARS:** Sustainability Tracking and Reporting

**STF:** Student Technology Fee

**STFC:** Student Technology Fee Committee

**TGIF:** The Green Initiative Fund

**UCSB:** University of California Santa Barbara

**UN:** United Nations

**UW:** University of Washington

## INTRODUCTION

### Foundation

Over the past three years, I have worked within the UW Office of Sustainability with responsibilities of leading and managing program operations for the Campus Sustainability Fund while simultaneously pursuing a degree at UW in the Master of Environmental Horticulture (MEH) program. The role started as a .5 Full Time Equivalent (FTE) Graduate Student Assistantship (GSA) internship and after year two, I was hired as a full-time employee at .8 FTE. Responsibilities and learning goals of the internship were broad and evolved over the course of two years and many extended into full-time employment.

The MEH coursework helped expand my knowledge and understanding of restoration ecology, ecological engineering, land management, alternative biofuels, plant physiology, plant identification, plant production and more. Given that over one third of the \$3+ million dollars that the CSF has granted to projects to date has been to those categorized as “Biodiversity and Living Systems” related, whether it be plant, animal, soil, biofuels, or marine, the significant interplay between the CSF and ecological/environmental disciplines at UW were supportive in my pursuit to develop a deeper technical understanding for projects within the ecological and horticultural spheres. In particular, I became fascinated by transdisciplinary teams working to meet sustainability goals and on the contrary, groups not working together while sharing identical goals.

With active CSF funded projects submitted from teams from over 45 academic disciplines, these projects both piqued and expanded my academic interests as well as galvanized a personal inquiry for knowledge beyond the ecology and horticulture fields. Taking coursework in Urban Planning, Landscape Architecture, Public Administration, Built and Environment, and the 3-Dimensional Forum (3D4M) program were integral to expanding my understanding of sustainability and connecting the environmental horticulture field to other disciplines.

The primary responsibility for the internship was to carry out the core administrative and management functions of the CSF: lead the solicitation and vetting of project proposals from UW students; support and organize its student Committee and staff; track and report on active CSF projects; oversee internal and external budgets; guide strategic initiatives; and maintain

strong relationships with CSF's campus partners. Through this experience with the CSF I developed an academic interest in the functions of the organization and the role that sustainability funds have broadly for modeling best practices for communities, municipalities, nonprofits, and other grant-making entities. I also became increasingly aware of the limitations of a fully student run organization, and began to recognize that while organizational activity, administration, and management needs increased for the CSF every year, there was a disproportionately small response in its internal structure, capacity and measurement of effectiveness as an organization.

Additionally, while there is information available on starting a green fund, such as the *How-to Guide: Campus Green Fund Implementation* developed by six universities and the Campus Green Funds Collaborative (Beverage et al, 2013), information on active management best practices are rather disparate with most directly useful information found disaggregated on other university websites and annual reports. I have worked to gather information on organizational structure, processes, and best practices from sustainability funds and other nonprofits. Some of this information has been gleaned anecdotally, from conference presentations, examination of related research and content, or from direct experimentation paired with administrative and faculty advisement. I will be using different narrative modes to examine various aspects of the existing phenomenon of university sustainability funds, as well as strategic planning and organizational development at the UW's Campus Sustainability Fund. Additionally, unless otherwise noted, the initiatives in this paper have been led by me and in many cases in collaboration with CSF team members, our Committee, and staff advisors. I delineate my role and contributions as best as possible throughout the document and give credit to others where due. Many of the roles and responsibilities of my position changed over the course of this internship as management and programmatic activities were expanded. To best communicate CSF internal metrics, I created a central database. Some of this data is utilized in this report.

### [Connecting Restoration Ecology with Cultural, Political, and Economic Dimensions](#)

The connections between the Master of Environmental Horticulture degree program and the CSF have provided me with a unique opportunity to address challenges and opportunities within the environmental horticultural field through an organizational, nonprofit lens. After year one of working in a lead role for the Fund, it became clear to me that there was a knowledge gap on



university sustainability fund management, organizational development and its interrelationship with program and project management resourcing and capacity. This relationship began to emerge as a key topic area for my vision of the overall success of CSF and advancement of MEH degree. Particularly, there was opportunity to strengthen the organization's programs and projects that focus on living systems, green infrastructure, and restoration sites.

Three specific objectives related to my role with the CSF and the goals of my final MEH project are identified below:

1. Identify and develop management strategies that support the CSF organization and project portfolio, with an emphasis on biodiversity and living system projects.
2. Through the platform and context of the CSF and campus sustainability funds in general, connect the environmental horticulture field to other disciplines and approaches through a broad definition of sustainability.
3. Document the process for developing a strategic plan and related processes to serve as a potential resource for other universities and similar organizations.

Through this management, planning, and strategy inquiry, I have worked to develop the CSF to both better support restoration and horticulture projects as well as provide resources for their continued sustainability. For the CSF to adequately support long term, complex projects that are designed to have a systematic and sustaining impact on campus, it has been necessary to ensure the CSF as an organization is also resourced to both sustain and continue to mature. It has also been an important function of the CSF to make and support broader connections between environmental, social, economic, and political dimensions of sustainability as it funds projects that have overlap within each of these categories. The broader relevance of each of these categories are discussed at greater length later in this report as are specific examples of project management of restoration, horticulture, and green infrastructure projects in the section "Management and Financial Sustainability of Projects."

When carrying out restoration and green infrastructure projects at UW, challenges surface that are not necessarily unique to UW or university campuses. While there may be an ecological basis for green infrastructure and restoration projects in an urban environment, simply carrying out the project will likely not have a sustaining impact and there may be technical challenges. One study

on green wall installations in Singapore points out the management challenges with these systems (Chew & Conejos, 2016). In some cases, for example with new green roof landscapes, invasive seed stock may be unknowingly contaminated with the introduction of native plant stock, and invasives such as reed canary grass, red fescue, Japanese knotweed, and more may be introduced to a site. In a case study of seven green roofs installed in King County, weed management was an unintended challenge and in some cases a lack of regular maintenance staff meant the eventual demise of installed vegetation (King County Green Roof Case Study Report, 2006).

Additionally, the cultural, political, and economic environment of a place (such as a university campus) will influence decision-making, management, and financial priorities that impact the feasibility of implementing and sustaining new projects and programs. For organizations that fund green infrastructure and restoration projects such as the CSF, the investment may not be considered prudent if the cultural, political, and economic environment does not support the long-term sustainability of the project. Funding projects without proper planning, buy-in, and long-term management strategies can create a political environment that makes the implementation of future projects even more challenging. Organizations such as the CSF can serve as a hub for creating active discussion and problem solving for meeting challenges, identifying potential solutions, and building a university culture that values and supports innovation and solution-oriented efforts. Through CSF's student-led and university advised structure it is able to bring forward transparent decision-making processes, transdisciplinary communication, collaborative thinking, and bridge the connection between design and maintenance for restoration ecology and green infrastructure projects. Campus green funds, if well-managed themselves, can supply project groups with management resources to help them sustain their projects beyond solely the funding and implementation phase.

## Sustainability Globally & Higher Education

The history of sustainability has important implications for the motivations and lead up to the advent of campus sustainability funds in the past two decades. Some sustainability funds have adapted their mission to ensure a more inclusive and equity-centered approach to addressing modern issues in recognition that many of the sustainability challenges today disproportionately affect marginalized and vulnerable communities across the planet. Many of these communities have often been left out of the mainstream discourse and decision-making processes related to sustainable planning and development (Bullard et al., 2007). Various efforts have been made by peoples throughout history toward the sustainability of the environment, cultures, and languages.

In the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP), the UN General Assembly states “respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment” (UN 2007, as cited in Tom et al., 2019). In the journal article *Indigenous Knowledges as Vital Contributions to Sustainability*, the authors point out that two-thirds of the 7,000 known spoken languages are those of indigenous peoples and draw a clear connection between language diversity and Indigenous sustainability: “The link between Indigenous languages, cultural practices, environmental knowledge and biodiversity is well-documented.” They further point to the works of Daniel Nettle and Suzanne Romaine in that “areas which are rich in languages also tend to be rich in biodiversity value” (Nettle & Romaine 2000 as cited in Tom et al., 2019).

In 1987, the United Church of Christ Commission for Racial Justice (CRJ) released a report titled *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-economic Characteristics of Communities with Hazardous Waste Sites*. This landmark report was one of the first to highlight that in the United States, communities of color are at a higher likelihood to live near environmentally hazardous facilities and are disproportionately affected by exposure to pollution and toxins from these facilities (Bullard, Robert, et al., 2007).

Benjamin Chavis, head of the CRJ, defined these specific incidents of environmental inequalities as “environmental racism” in response to the 1987 report and described the broader implications: “Environmental racism is racial discrimination in environmental policymaking, the enforcement

of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the life-threatening presence of poisons and pollutants in our communities, and the history of excluding people of color from leadership of the ecology movements” (Brulle and Pellow, 2006).

Mainstream notions and definitions of sustainability have evolved over the past decades to incorporate issues of environmental racism and inequity but in part, have historically failed to explicitly call out the importance of centering sustainability issues on race, equity, and discrepancies in power. In 1972 the United Nations (UN) Conference on the Human Environment held in Stockholm led to the creation of the United National Environment Program (UNEP) tasked with “enabling nations and peoples to improve their quality of life without compromising that of future generations.” This same year, the Club of Rome, an organization consisting of distinguished scientists, economists and leaders from around the world released a report titled ‘The Limits of Growth’ that highlighted the linkage between increased economic activity and the eventual depletion of natural resources (Bonanomi, 2015).

In the 1980s the UN World Commission on Environment and Development (WCED), otherwise known as the Bruntland Commission, was established. The commission began to raise awareness on the inequities of development and disproportionate environmental impacts of the global energy sector on developing countries (Throsby & Petetskaya, 2016). In addition, the group came up with what many have since agreed upon as a definition of sustainability: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

In 1990, two scholars Bryant and Mohai organized the *Conference on Race and the Incidence of Environmental Hazards* at the University of Michigan where research and findings were presented on “socioeconomic disparities in the distribution of environmental contaminants” and were forwarded to the EPA, at which point a substantial body of literature and findings were available and influenced the shaping of policy proposals by the EPA (Brulle and Pellow, 2006).

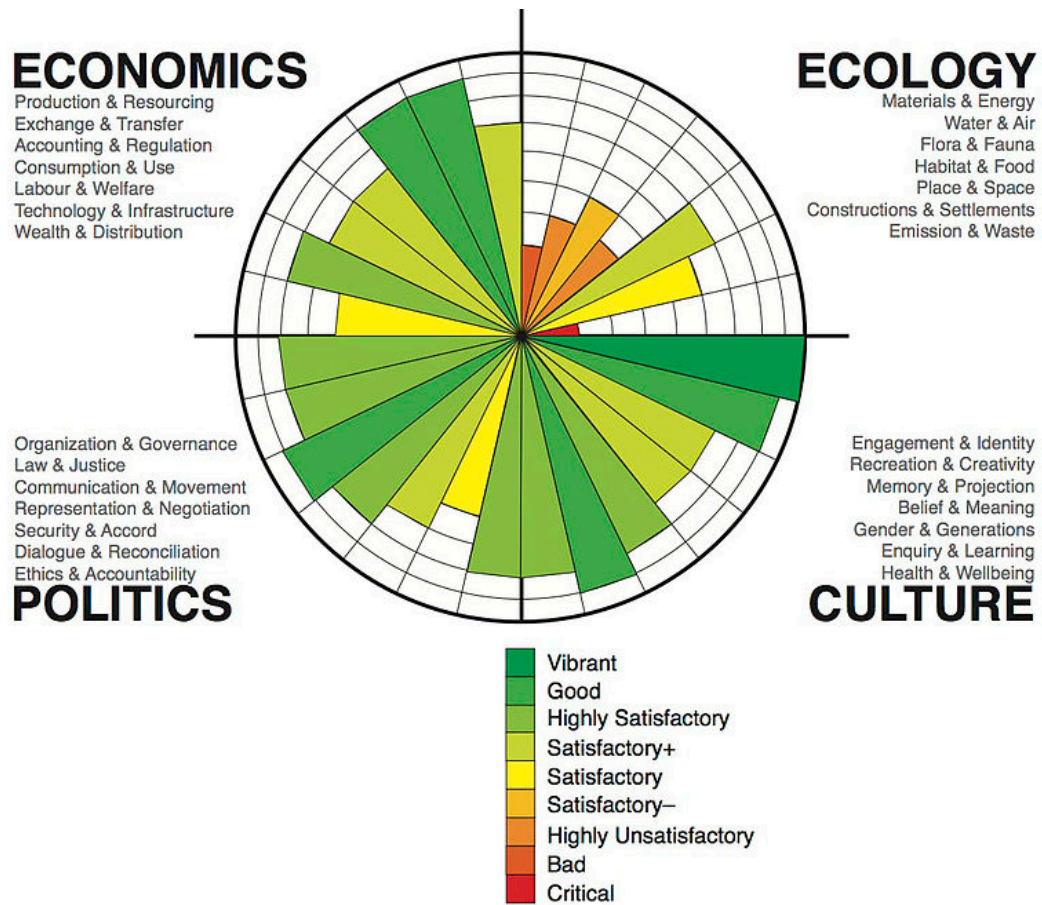
In 1991, just one year before the Earth Summit held in Rio De Janeiro, the *First National People of Color Environmental Leadership Summit* was held in DC and 17 principles of Environmental

Justice were established (Schlosberg and Carruthers, 2010). From 1992-2012, the once per decade Rio Conferences were emergent in discussing pressing environmental issues around the globe, and after the 2012 Rio Conference, the Sustainable Development Goals (SDGs) were created. The Goals were of particular importance as they began to unify the otherwise disconnected thread between issues of equity, equality, human health and wellbeing, environment justice, climate change, environmental degradation, and more. The 17 categories (Figure 1) have 169 targets that prioritize the needs of all nations and recognize the discrepancies between developed, heavily polluting nations, and less developed nations that contribute less to climate change but may be more impacted by its effects (The Sustainable Development Agenda, 2019). The SDGs were adopted by the UN General Assembly and were intended to advance the 2030 Agenda for Sustainable Development (Norichika & Biermann, 2018). The goals build on the two-decade long efforts of the UN by creating specific targets and indicators, helping to create a comprehensive plan with obtainable measures for sustainable development. The goals are applicable within universities, policy spheres, governments, municipalities, institutions and organizations’ internal and external operations.



Figure 1. The UN Sustainable Development Goals lay out a framework for sustainable development globally. Image Source: (Communications materials - United Nations Sustainable Development, 2019).

The “Circles of Sustainability” framework (Figure 2) is another conceptual and practical tool that was developed over a 7-year period through a global collaboration hosted by the UN Global Compact Cities Programme (Practical tools for creating sustainable cities and communities, 2019). The approach uses qualitative and quantitative indicators for investigating, planning, and monitoring sustainable development in cities and communities across the world. Sustainability is often associated with environmentalism both by practitioners and theorists (Throsby & Petetskaya, 2016) as well as those that may be less familiar with the concept. The Circles of Sustainability framework provides a system for approaching ecological challenges as not just an externality of unsustainable economic practices, but an intrinsic foundation of any human created system, and of equal importance and function. The framework also accounts for the myriad cultural approaches to sustainability, allowing for a negotiation between the economic, ecological, political, and social drivers. In sum the framework is intended to be “linked to contested and negotiated normative concerns about how we should live” and “issue driven, locally adaptable and tied to practical outcomes” (Practical tools for creating sustainable cities and communities, 2019).



## CIRCLES OF SUSTAINABILITY

*Figure 2. The Circles of Sustainability methodology provides a framework and toolkit for cities, communities, and organizations to address critical challenges while directly linking domains not as separate entities but as systematically dependent on one another (Image Source: Practical tools for creating sustainable cities and communities, 2019).*

The Circles of Sustainability and UN SDG's are important to university sustainability funds as they establish frameworks for assessing sustainability projects and initiatives while recognizing culture, economics and issues of equity as inseparable when addressing complex societal and environmental challenges. They help to establish a semantic common ground for discussing sustainability more broadly than "environmental sustainability" and provide decades of iterative thought, discussion, and decision-making from a globally representative body. While not intending to co-op environmental justice and cultural movements, the SDGs provide a unifying

platform for self-representation for diverse communities and an inclusive pathway toward meaningful interdisciplinary and intercultural collaboration and progress.

### Origins of the University Green Fund & UW's Campus Sustainability Fund

As of 2019, 124 student fee backed “green” funds exist at universities across North America (Figure 3) ranging in size from a few thousand-dollars annual budget to over a million dollars (AASHE Campus Sustainability Hub, 2019). Student fee type sustainability organizations differ from green revolving loan funds in that their primary goal is not necessarily a direct financial return, and instead may be directed toward student learning and professional development opportunities, increasing resource use efficiency on campus, piloting new technologies, building community and social awareness, and kickstarting innovative program ideas. Nested within academia, student green fees also provide a mechanism for applied research where other research funding may not be applicable.

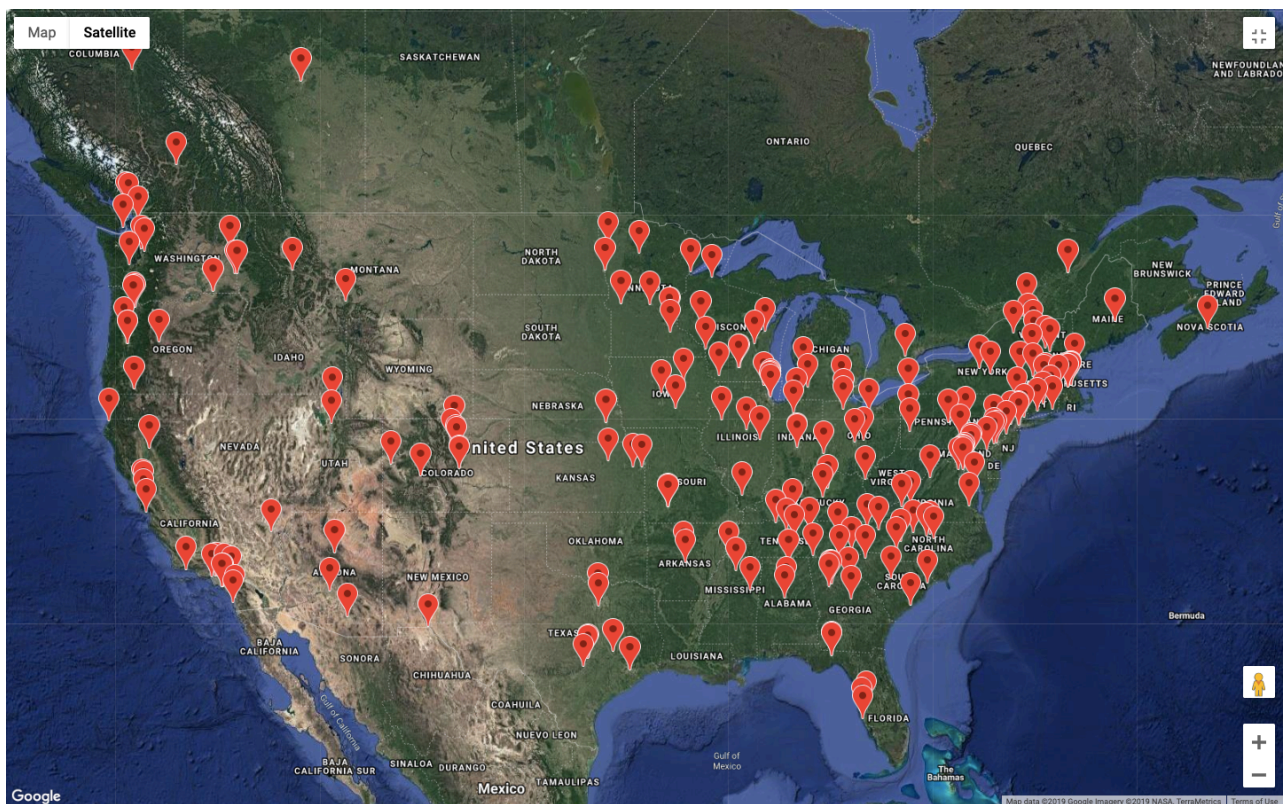


Figure 3. Spatial distribution of 124 campus green funds across North America as of 2019. Two funds are located in Alaska, one in Europe, and none are known to exist elsewhere. Data Source: (AASHE Campus Sustainability Hub, 2019; Google Earth Globe View).



Student funded “green” or “sustainability” funds, such as the one on the University of Washington’s Seattle campus, are uniquely positioned to lead the catalyzation, implementation, and scaling of sustainable innovation within the university context. Their ability to support students in accessing and effectively utilizing funding allows for ideas that may otherwise remain conceptual to be implemented on campus. The organizational structure of these funds allows for grassroots ideas to reach upper level decision makers and provides students, faculty, and staff a pathway to be included in campus planning and decision-making. This inclusion can foster a culture of transparency within the university as a whole and fuel creative ideation in planning decisions. With the backing of directly student sourced funding, bureaucratic, political, and financial barriers that may otherwise be unsurmountable within a typical student academic experience and university environment can be surpassed. This allows students to gain hands-on experience with “real world” scenarios related to planning, implementing, and managing projects and programs. Campus sustainability funds can be a vehicle for the “living lab” approach that many universities tout as an experiential approach to learning.

The origins of the university green fund model are not well-documented, though public records date the inception to spring 2006 at UC Santa Barbara (UCSB) where Logan Green helped build “The Green Initiative Fund” (TGIF) (Overall, 2018). The creation of this fund was of particular importance as it helped to document both a process for leveraging student fees for sustainability initiatives, as well as a set of bylaws that helped to establish organizational and governance structure. The mission of the UCSB fund, as stated in 2019, is as follows: “The Green Initiative Fund (TGIF) provides funding for projects which ‘green’ our campus and reduce the University’s impact on the environment. TGIF allocates funds to projects that increase the amount of renewable energy used on campus, increase energy efficiency, and reduce the amount of waste created (GHGs) by our University. Portions of the fund will support education initiatives, student aid (via return to aid), and internships. TGIF is administered through a student majority governance board” (TGIF, 2017).

In 2006, UC Berkeley students were in direct contact with UC Santa Barbara after hearing of the success of its initiative (Overall, 2018). UC Berkeley began their own campaign the same year, creating a referendum that was voted on during student government elections. The referendum was passed, and a \$5 levy was placed on students and an operational charter was created (Program History, 2019). The UW’s Campus Sustainability Fund was started a few years later in

2010 at the University of Washington as part of a student capstone project and grassroots movement. A group of more than 50 students worked to garner support from across the University — receiving over 5000 student petition signatures, 100 RSO endorsements, and widespread faculty and staff support. At this time, the UW’s Climate Action Plan had just been completed (Climate Action Plan, 2019) and there was significant momentum on UW’s campus around environmental topics and action.

While these funding mechanisms are unique in that they provided financial leverage to support student ideas, environmentalism on university campuses dates back generations. In 1989, an environmental group at the University of North Carolina Chapel Hill founded a national student and youth environmental movement called the Student Environmental Action Coalition (SEAC) that quickly grew to have members at over 2,200 universities, colleges, and high schools across the US (Smith, 1992). Sustainability funds have helped to transform the landscape of student environmentalism and activism by providing a platform for students to back their ideas with funding, as well as become the decision-makers for how that funding is allocated.

## ORGANIZATIONAL STRUCTURE & OVERVIEW

### CSF Mission

In fall 2017, I worked with the CSF staff to update our mission statement. The goal was to use inclusive language that appeals to diverse communities and academic disciplines on campus. The CSF's mission statement is used during presentations to students and UW administration and is also available on the CSF's website. The updated statement is below:

“The Campus Sustainability Fund (CSF) is working to create a sustainable campus and foster an intentional and involved university culture by funding student-led multidisciplinary projects that drive campus equity, resilience, and stewardship. “

### CSF Vision

The CSF vision statement was created in 2019 by CSF staff and Committee as part of the strategic planning process:

“At its core, the CSF provides opportunities for UW students to engage in the proposal, planning, and implementation of sustainability-oriented projects from conceptual design to project management through completion.”

### Governance

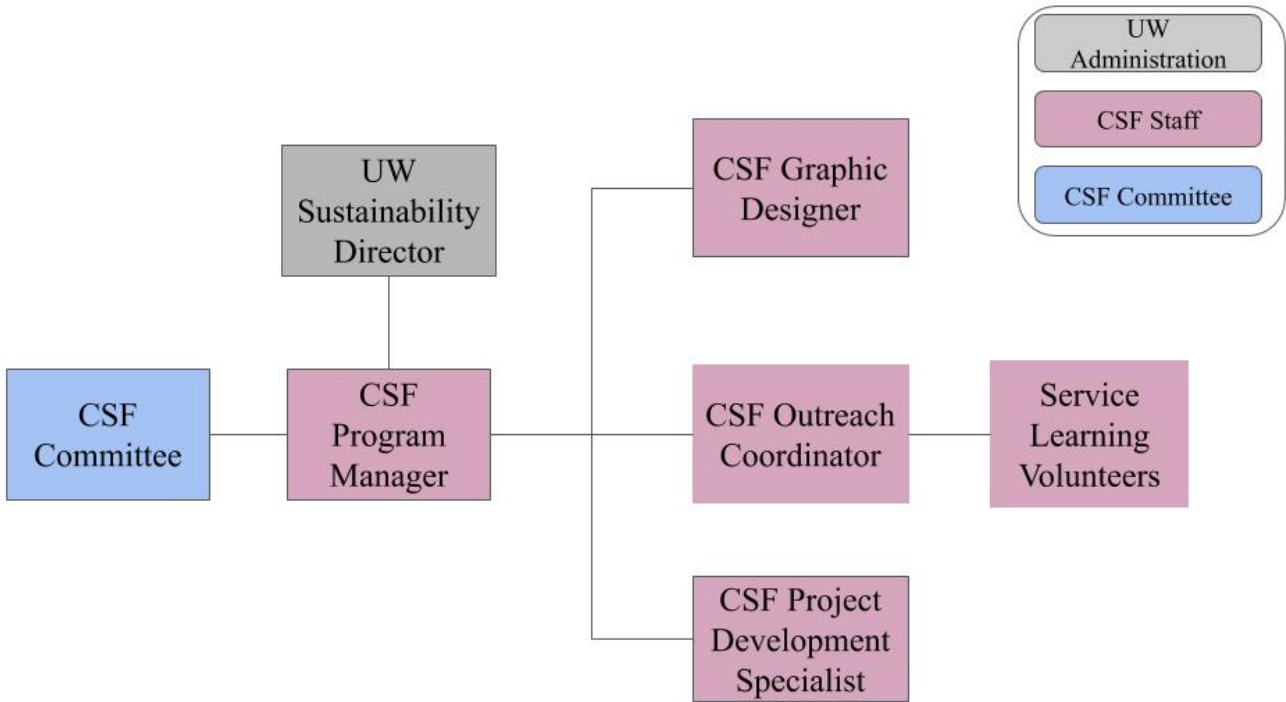
The governance structure of the CSF influences both its organizational decision-making and strategic planning processes. The governing members consist of students, faculty, and staff that are appointed by various entities from throughout campus (Table 1). This governing body works parallel to the CSF staff, which helps to advise the Committee and carry out operational and administrative functions of the organization. The Committee structure was established in 2010 with some modifications made in the past 2 years. Voting members decide on the CSF's annual budget which is broken out into 3 main categories: operations, overhead (includes marketing), and projects.

*Table 1. CSF Committee structure consists of 7 voting student members and 5 non-voting ex officios who serve in an advisory and project support role. Student voting members can serve up to 2 years consecutively though the total number of terms they can serve is not limited. Faculty and staff ex officios (non-voting members) are selected for 1-year terms and may serve indefinitely.*

Voting Members	Non-Voting Members
<ul style="list-style-type: none"> <li>• 1 Student Advisory Board Member to the Office of Minority and Diversity Affairs</li> <li>• 3 Associated Students of the University of Washington Representatives</li> <li>• 2 Graduate and Professional Student Senate Members</li> <li>• 1 Environmental Stewardship Committee Member</li> </ul>	<ul style="list-style-type: none"> <li>• 1 to be appointed by the Faculty Senate</li> <li>• 1 to be appointed by the Associate Vice President of Facilities Services</li> <li>• 1 to be appointed by the Provost</li> <li>• 1 UW Sustainability Representative</li> <li>• 1 ASUW Board of Directors Liaison</li> </ul>

Source: (CSF Bylaws, 2019).

The CSF organizational structure (Figure 4) helps to delineate roles and responsibilities within the organization and shape its strategic goals and initiatives. The CSF staff serve in an advisory and support role to the Committee, helping to relay key insights on projects and broader context for decision-making. The Committee, designed to be a representative body of the University, helps to prioritize organizational strategy on a year to year basis by providing insights on the campus “climate” related to key topic areas and sustainability challenges. In a given year, the CSF staff may have goals related toward improving operational efficiency whereas the Committee’s primary goals may be directed toward the CSF’s project portfolio and long-term financial strategy. Through a strategic planning process, the CSF staff and Committee may bridge these goals and come up with a cohesive vision the filters through the various functions and roles within the organization.



*Figure 4. CSF Organizational Chart. CSF Program Manager supervises the CSF student staff and provides management support. A collaborative approach is taken to operating the fund. Students are given autonomy and decision-making power within the organization and are encouraged to make process improvements and innovate.*

The primary programmatic function of the CSF is to support the development and review of grant proposals by UW students, faculty, and staff teams. The CSF governance structure supports this proposal process by providing a forum for review and input from students and ex officio members who are representative of various campus departments. Projects teams are required to receive administrative approvals from campus entities depending on their project scope and are provided feedback at the Letter of Intent (LOI) stage of their proposal from student members that they are expected to address at the Full Proposal stage. Ex officio members provide key insights on feasibility, viability, and potential impact of project proposals, allowing the student voting members to make informed decisions on the use of funds.

### Bylaws

The CSF bylaws were created during its formation in 2010 and provide a set of guiding parameters and specific limitations throughout every aspect of the organization (Bylaws, 2019). The bylaws address dimensions of the organization including hiring, staff and Committee

structure, representation, roles, funding criteria, and preferences. The bylaws may be amended with majority vote by the CSF Committee, and are typically reviewed and revised on a yearly basis. Much of the CSF strategic planning process over the past 2 years has been integrated into its bylaws ensuring continuity of efforts year to year and systemic integration of various initiatives. The CSF bylaws are available online at [csf.uw.edu/bylaws](http://csf.uw.edu/bylaws).

### Funding Cycle

In the 2018-2019 academic year, as part of the CSF’s strategic planning process, the funding schedule was updated to a three-time yearly cycle that aligns with the academic quarters at the UW (Figure 5). This process improvement allows for projects to get started early in the academic year and to be initiated and implemented in the same year. The prior model delayed the funding schedule toward the tail end of the year, where application recipients would not receive funding until late March, only a couple months before the academic year end.

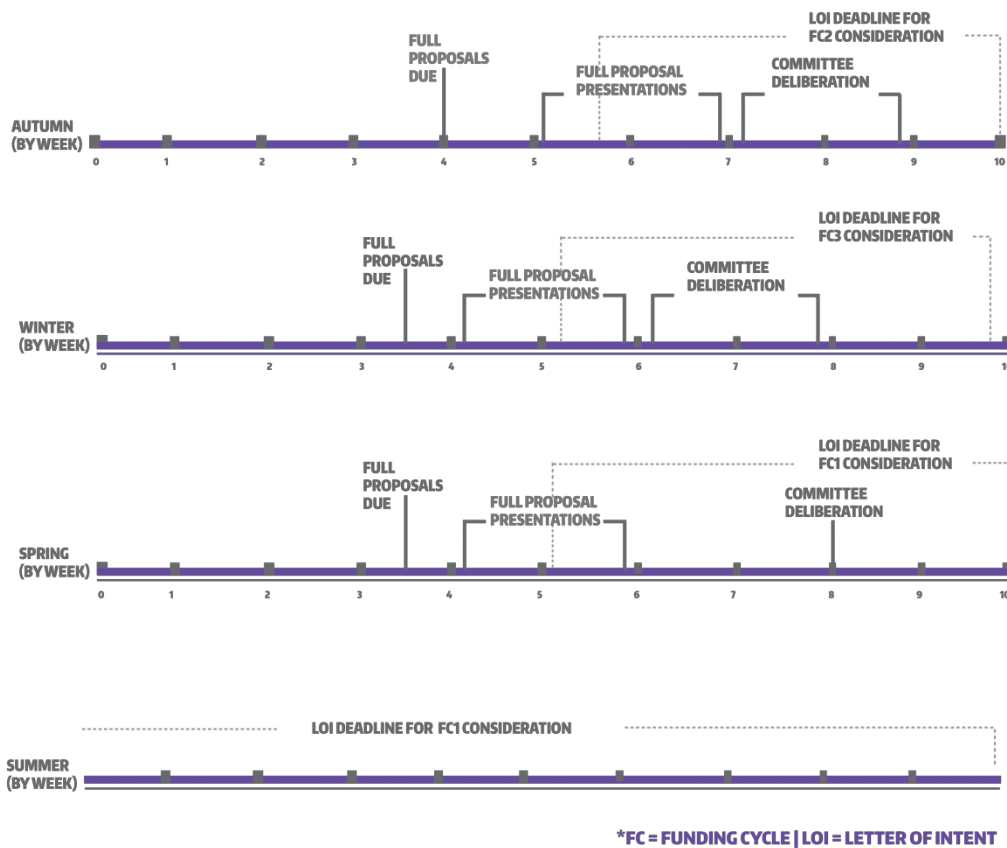


Figure 5. 2018-2019 Funding Cycle schedule visual for projects greater than \$1000. (Illustration Source: Peters, 2019 - CSF).

## CSF Funding Schedule

**Cycle 1 (Autumn):** LOIs are due between May 1 - September 1. If approved, Full Proposals are due on October 15. Final decisions are made by December.

**Cycle 2 (Winter):** LOIs are due between November 1 - December 1. If approved, Full Proposal are due on January 15. Final decisions are made by March.

**Cycle 3 (Spring):** LOIs are due between February 1 - March 1. If approved, Full Proposal are due on April 15. Final decisions are made by June.

### **Two-step process (LOI and Full Proposal) for projects greater than \$1000:**

For projects greater than \$1,000, there are 2 steps. The first step is to submit a Letter of Intent (LOI). Second, if approved, a Full Proposal (FP) is submitted. Both are completed with an online application system.

### **Mini-grants (<\$1000)**

Rolling deadline, applications can be submitted at any time. Completed in an online application system.

(CSF Deadlines, 2019)

**Project Criteria:** The CSF Project criteria has remained largely consistent year to year, with the exception of additional language on diversity, equity, and inclusion under “Sustainable Impact” added by the Committee in the fall of 2018. The Project criteria applies to both Mini-grants and projects greater than \$1000:

1. **Sustainable Impact:** Projects must improve the sustainability of UW’s campus and/or operations. Sustainable impact encompasses both social sustainability - cultural awareness & preservation, representation or engagement of underrepresented communities, diverse and interdisciplinary collaboration – and environmental sustainability – reducing carbon emissions, energy use, water use, waste, pollutants, and toxins, as well as improving living systems, biodiversity, environmental justice and equity. Projects focused on social sustainability should also include an environmentally sustainable component, although this part does not have to be the project’s focus.
2. **Leadership & Student Involvement:** Staff and student roles must be clearly outlined and reflected in the proposed project budget. Projects must demonstrate some substantial

degree of student leadership or student involvement throughout the application and implementation process to be considered for funding. Additionally, projects initiated by students will be prioritized.

3. **Education, Outreach, & Behavior Change:** Projects *must* include educational and outreach components that help cultivate an aware and engaged campus community.
4. **Feasibility & Accountability:** Applicants must demonstrate that they have or can attain the technical knowledge, necessary approvals, and project management skills to complete projects successfully. The Fund encourages the use of a faculty or staff mentor, appropriate department support, and/or a line item in the budget for project management. CSF monies must be used in a socially responsible manner—to be determined by the Committee. Projects requiring ongoing maintenance or staffing not funded by the CSF should demonstrate a plan to meet long-term needs.

(Project Criteria, 2019).

#### Funding Sources and Amounts

The CSF receives its base source of funding from the UW's Services and Activities Fee (SAF). Each year the CSF is awarded on average \$361,117 from the SAF (Figure 6). From this allocation the CSF Committee budgets for anticipated grant funding to projects (Figure 7 and 8), operational costs, and overhead/outreach costs. The SAF Committee funds a total of 18 units at the UW including the CSF, with a total budget of around \$15 million dispersed across these units annually. The total per student cost for the CSF allocation is about \$3 per quarter, \$9 per academic year and 2.5 percent of the total SAF budget. This yearly award to the CSF equates to approximately \$.35 per student credit hour. The SAF budget has historically increased year to year since the CSF's inception with increased student enrollment, with exception of FY18 and FY19. The SAF fee has also been raised multiple times over the years to support the growth of its funded units, as well as the addition of new units.

In 2018 and 2019, the CSF received a \$200,000 "Special Project" block type grant award from the Student Technology Fee (STF) that it then awards to projects with a focus on sustainable technologies. Through this funding, a yearly allocation is made to the CSF and its Committee is then able to vote on allocations to individual project proposals while following the joint CSF/STF Terms of Agreement (Appendix A). Each year the CSF carries out extensive reporting



and communications between both the SAF and STF Committees, and ultimately the student Committees decide on the yearly allocation for the CSF.

Since 2016, the CSF has received an annual class gift of \$5,000 from UW's College of the Environment (COE) (Figure 6). The gift is awarded to a CSF-funded project selected by the COE graduating class each year.

The CSF has historically received a larger request for funding at both the LOI and Full Proposal stage than its total annual overall budget (Figure 6 and 8). In some cases, such as in FY17, the CSF was able to reissue funds from completed projects or projects that had become infeasible after being awarded funding do to unexpected circumstances. Additional funding has been returned from projects in FY18 and FY19 but has not yet been incorporated into fiscal models. This will be an important next step for full transparency on CSF finances in a given year.

Increases in funding requests and number of funded projects between FY17 and FY19 (Figure and 9) were largely due to expanded outreach efforts and on-campus partnerships that the Program Manager [myself] and Outreach Coordinator spearheaded with organizations such as the UW's Ethnic Cultural Center and Resilience Lab. Additionally, the overall number of proposals received and funded increased during this time frame with the introduction and expansion of the Mini-grant program (Figure 7 and 9). In partnership with the UW Resilience Lab, I helped to launch the second year of a "Resilience Seed Grant" program in FY19 with an emphasis on making connections between the "Good Health and Wellbeing" SDG and others. 16 grants were awarded (Figure 7) by the CSF ranging from \$500-\$2500 for a total of \$31,750, creating a sharp increase in the number of projects funded in FY19 and overall funding awarded to projects.

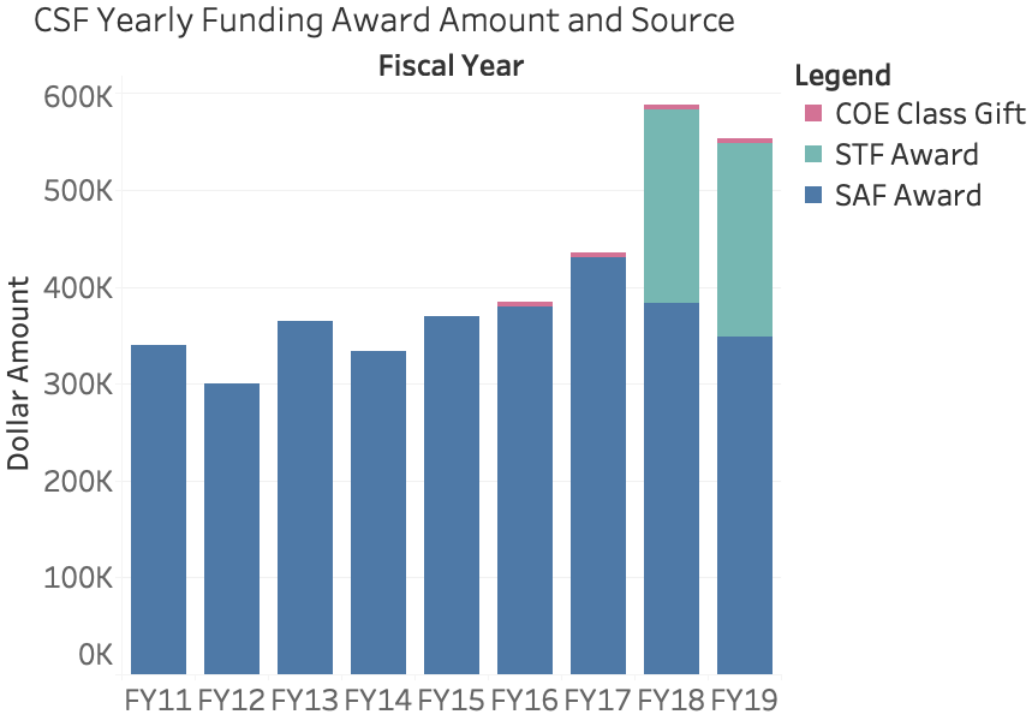


Figure 6. CSF total funding by year. COE = College of the Environment; STF = Student Technology Fee; SAF = Student Activity Fee.

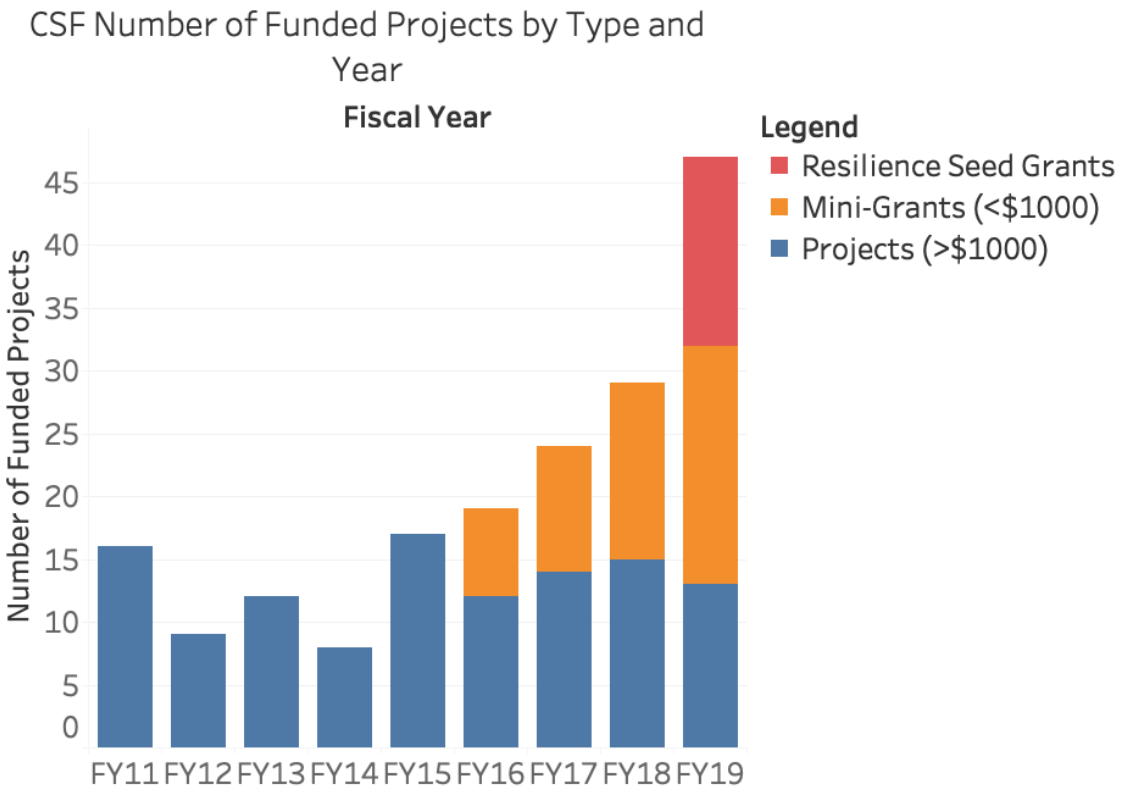


Figure 7. CSF number of funded projects by type and year.

CSF Award to Projects (>\$1000) vs. Demand

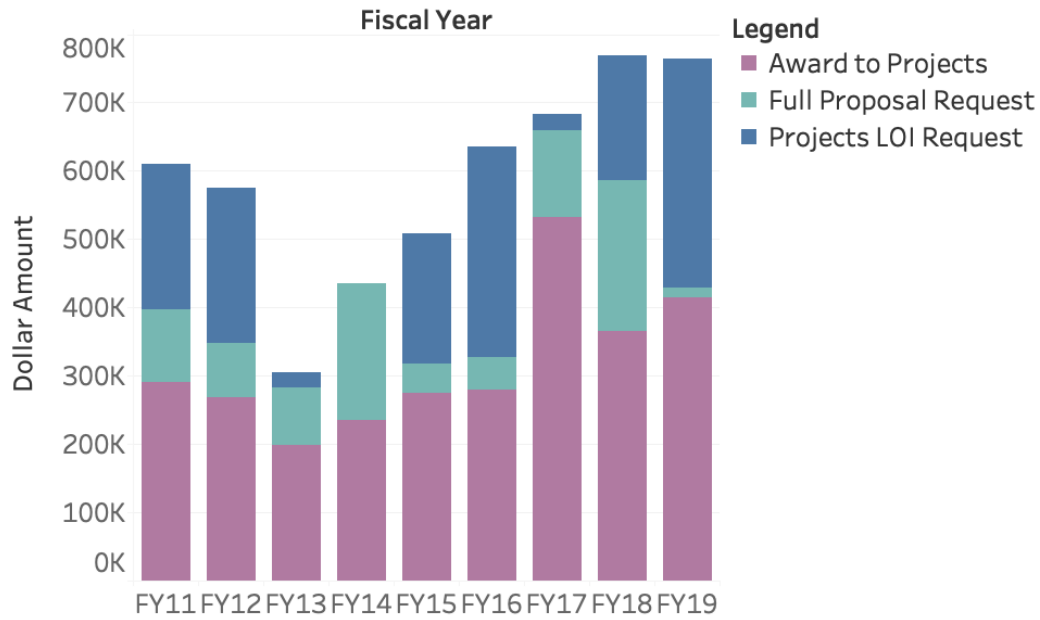


Figure 8. CSF total dollar award to projects and total request from projects at the Full Proposal and LOI phase.

CSF Award to Mini-grants (<\$1000) vs. Demand

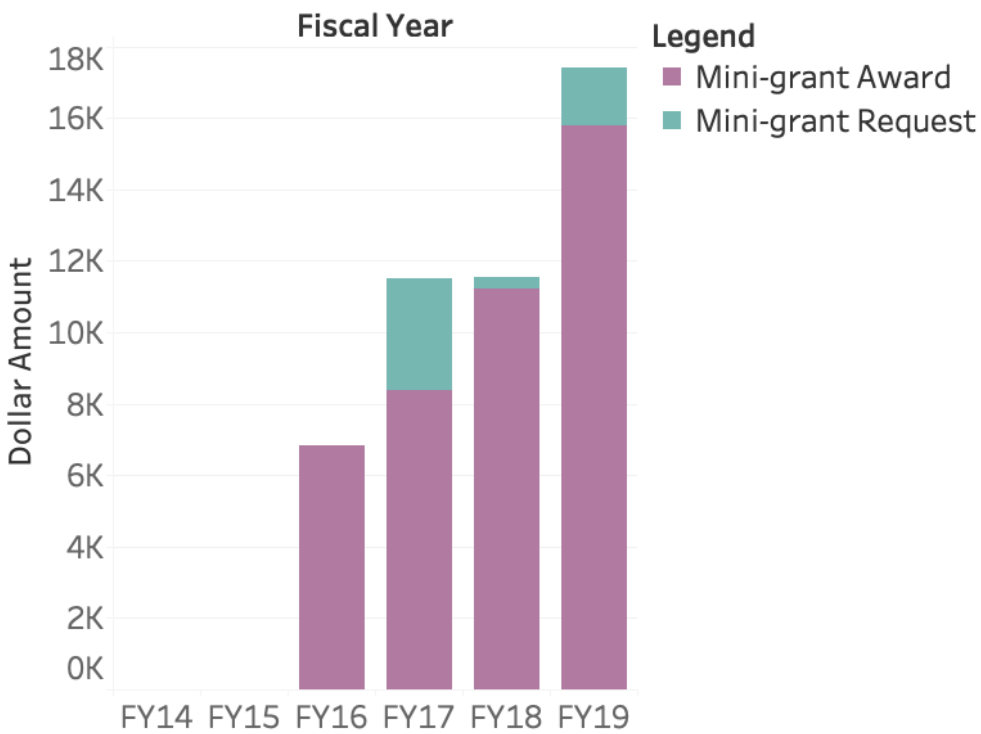


Figure 9. CSF total award to Mini-grants and total request by year.

## Connecting Sustainability and Technology

In 2017, the CSF Program Manager [myself] helped to lead a partnership with the Student Technology Fee Committee, the first of its kind documented for a Campus Sustainability Fund on a university campus. The connection between technology and sustainability has been widely explored in academia and has become increasingly relevant given modern social and environmental challenges. In Simon Trace's book "Rethink, Retool, Reboot: Technology as if People and Planet Mattered" he states: "More than ever, human wellbeing and the possibility of a sustainable life on this planet are both tightly bound to the technological choices we make" (Trace, 2016).

A multi-year dialogue and iterative agreement between the Campus Sustainability Fund and Student Technology Fee (STF) organizations has helped to create a pathway for students to propose ideas for increased access to technologies at UW that focus on sustainable innovation. The partnership began in 2017 as an opportunity to diversify the proposal types for both the CSF and STF organizations and provide additional resources for student projects that have a sustainable technology focus. The partnership was also at the recommendation of the then SAF Committee Chair as the SAF was recovering from a budget shortfall after a missed projection in student enrollment and ensuing substantial decrease in revenue for SAF to grant to units in FY18 and FY19. CSF's funding from SAF was reduced in both FY18 and FY19 (Figure 6) but its overall annual budget increased from prior years with the addition of STF funding. The development of the CSF/STF partnership has been a multiyear process with multiple iterations to best meet the mission, goals, and criteria of both organizations.

The following are my reflections on the key steps for developing a successful sustainability fund / technology fee partnership:

1. Creating an initial proposal to help communicate the mission, vision, history, and structure of the sustainability fund and outline overlap with the technology fee.
2. Establishing a Terms of Agreement (Appendix A) on the conditions of funding ensures the decision-making autonomy of the sustainability fund committee while ensuring technology fee policies and procedures are being met.
3. Regular monthly check-ins with the technology fee proposal compliance officer (or similar position) to update them on incoming proposals, potential budget line items, and

overall funding proved essential for maintaining a robust dialogue between the two organizations.

4. Each year both committees have new membership — documenting frequently asked questions regarding the sustainability fund, funding structure, project types, etc., is important to ensure the efficacy and efficiency of the relationship, particularly in beginning years while rapport is still being established.

An initial proposal was developed by me and then student Project Development Specialist employee Ian Rose with input from the CSF Committee and UW Sustainability. The proposal outlines the connection between sustainability and technology and potential applications on the University campus. The proposal highlights the importance of advancing student learning and access to sustainable technologies. In one section, Rose writes: “In this era of interconnected information and rapid technological advancement, it is incredibly important to not only engage students through access and exposure to sustainability-directed technology, but also to facilitate and encourage a more intentional and sustainable student relationship to the technologies they use on a daily basis through an understanding of the interrelated energy and resource systems they partake in, as well as the environmental and social impacts of the sourcing, usage, and eventual disposal of the technology made available to them.”

In addition to a proposal conveying the technical importance of connecting technology and sustainability, establishing a Terms of Agreement clearly outlines agreed upon projects types that can be funded using STF funds (listed below). This agreement was created jointly by the CSF Program Manager, Committee Chair, and STF Committee members (Full Terms of Agreement Appendix A).

- a. ***Renewable energy technologies*** (semi-permanent and mobile), including but not limited to: solar panels.
- b. ***Electric alternatives to gas combustion engines*** (mobile), including but not limited to: electric bikes.
- c. ***New waste management technologies*** (semi-permanent and mobile). including but not limited to: interactive recycling signage, biodigesters, on-site recycling or compost technologies.
- d. ***Educational displays*** (TVs, monitors, etc.),

- e. ***Innovative green building technologies*** (semi-permanent or convertible), including but not limited to: rainwater/greywater treatment, circadian lighting, composting toilets, performance monitoring systems.
- f. ***Energy and water metering technologies*** (semi-permanent).

**Projects funded to-date (2017-2019) include:**

- Electric Outboard Motors, Sustainability for Washington Rowing.
- Population Health Facility Visible Rainwater Educational Display & Filtration.
- Manastash Ridge Solar Equipment.
- Solar Table UL Certification.
- Electric bikes for UW Botanic Gardens & Farm Students & Staff.
- Precious Plastics Reuse Machinery for 3D Printing.
- Electric Outboard Motors for Applied Physics Lab propulsion.
- Machine for Reusable Dining Hall Containers.

In FY18, while the CSF received \$200,000 from the STF, it only granted out \$46,900 of that funding because projects did not clearly meet the requirements specified by the STF. In FY19, these requirements were updated and outlined in the Terms of Agreement document (Appendix A), ensuring that the CSF Committee could make informed, autonomous decisions on the use of STF-granted CSF funds.

## STRATEGIC PLANNING PROCESS

### CSF in the Campus Landscape

The CSF, being a student-funded organization, has historically solicited and prioritized funding projects that have a direct impact on the physical environment of campus. Many of its projects have trended toward environmental impact (Figure 10), though in recent years, and through the CSF's strategic planning efforts, steps have been taken to increase the diversity of projects. The CSF serves a unique role at the UW in the type of resource it offers the UW community, particularly students. With its strong historical environmental focus, it has in some ways distanced itself as an organization from other sustainability initiatives and networks on campus that are addressing social issues. The goal for the CSF is not to move fully into the social sustainability realm, rather, it is to ensure its overall portfolio addresses not just environmental issues but underlying discrepancies in access and opportunity and recognizes the importance of intersecting identities in an approach to sustainability. It has been the consensus of the CSF Committee that the CSF should remain focused on projects that address environmental issues but should require these projects to also address the social implications. On the contrary, projects that are directed toward social issues should have an environmental component. It has been an imperfect process in practice for the CSF staff to support teams through the CSF application and project development process to meet these criteria. For some communities at UW, immediate needs and goals may differ from those explicitly outlined in the CSF criteria. For this reason, and in order to best serve the UW community a whole, the importance of diverse organizational membership is corroborated. The CSF's organizational goals and values should be continuously reevaluated to ensure members are exhibiting an increased competency and capacity to support and integrate the learnings from diverse proposal types. Further steps that have been taken to support the adaption of the CSF's mission are discussed later in the implementation of Diversity, Equity, and Inclusion as part of the CSF strategic planning process.

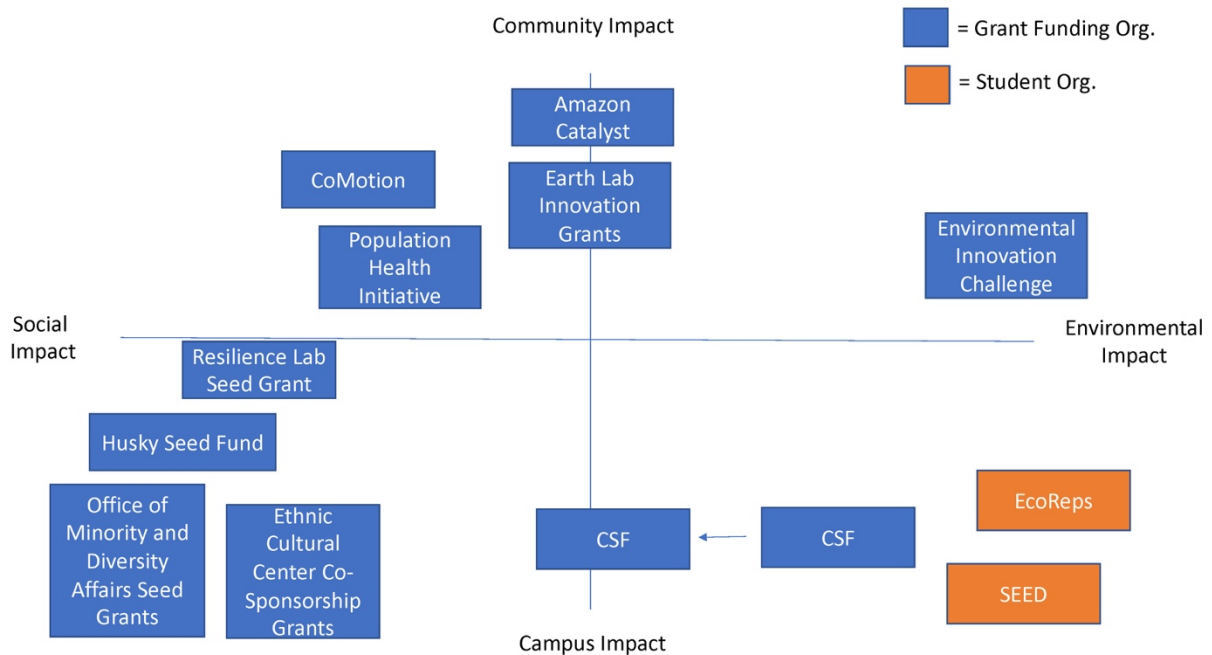


Figure 10. UW grant funding and student organizations. The CSF serves a unique role in the UW campus landscape by funding projects that have an on-campus impact and have historically been environmentally themed. In recent years, the CSF has moved to fund projects with a more social impact to better serve students directly. Chart concept (Allen 2019).

The CSF team has started the process of mapping its project portfolio to the SDGs and Circles of Sustainability categories (Table 2). An important aspect when considering the CSF's functional and managerial structure is the composition of projects that it funds and overall investment categorically (Figure 11). This distribution has implications on overall project management needs, requirements for expertise within these individual categories by CSF staff (and a consideration for Committee / governance selection), as well as on the campus overall both in the benefits that projects provide as well as fiscal and human resources external to the CSF that are required to sustain funded projects. The CSF's funded project portfolio may also provide information about potential implicit biases in decision-making, regional perspectives on sustainability, and organizational resistance to conceptualizing sustainability beyond environmental. Ultimately it is at the discretion of each year's Committee on which projects types they will prioritize. CSF project categories were adapted from the Association for the Advancement of Sustainability in Higher Education (AASHE) Sustainability Tracking, Assessment & Rating System (STARS) (Stars Technical Manual, 2017) and other categories have been created ad hoc to best suit CSF project characteristics. Going forward the CSF will



revise its application system to allow applicants to self-select goal areas that their project works toward as well as specific targets and indicators for meeting these goals. For now, only a superficial relationship between CSF categories and the SDGs are displayed (Table 2).

*Table 2. Mapping CSF Metrics to the SDGs and Circles of Sustainability.*

<b>SDG Number</b>	<b>UN SDG (Sustainable Development Goal)</b>	<b>Circles of Sustainability</b>	<b>CSF Categories</b>
1	No Poverty	Economics	
2	Zero Hunger	Society; Ecology	Food Systems
3	Good Health and Wellbeing	Culture	Resilience & Wellbeing; Food Systems
4	Quality Education	Culture	Education
5	Gender Equality	Culture	Diversity and Equity
6	Clean water and Sanitation	Ecology	Water
7	Affordable and Clean Energy	Economics	Clean Energy
8	Decent Work and Economic Growth	Economics	
9	Industry, Innovation, and Infrastructure	Economics	Planning; Transportation; Waste; Art
10	Reduced Inequalities	Culture	Diversity and Equity
11	Sustainable Cities and Communities	Culture	Planning
12	Responsible Consumption and Production	Politics	Waste
13	Climate Action	Politics	Clean Energy; Planning; Events
14	Life Below Water	Ecology	Water
15	Life on Land	Ecology	Biodiversity and Living Systems; Food Systems
16	Peace, Justice, and Strong Institutions	Politics	Resilience and Wellbeing
17	Partnerships for the Goals	Culture	Planning; Education

## CSF Funding Dollar Amount by Category

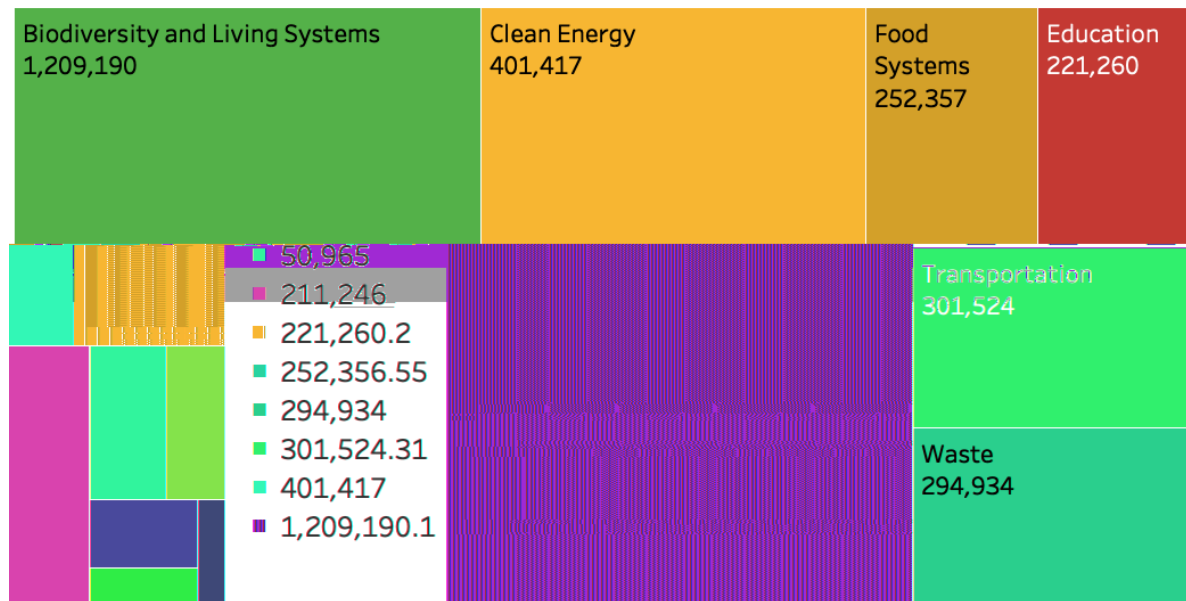


Figure 11. CSF project funding by project type. Since its inception in 2010, over one third of CSF’s funding has been awarded to projects categorized as “Biological and Living Systems.” Other categories not labeled include: Planning (50k), Diversity and Equity (39k), Resilience and Wellbeing (32k), Events (17k) and Art (12k). CSF project categories are mapped to SDG category colors based on relationship in Table 2.

### Organizational Development

As a pretext to the strategic planning process, an introduction will be provided to the steps that have been taken to build out the organization’s management structure and ensuing impacts on programmatic and membership (staff & committee) continuity, knowledge retention, and planning capacity. With the highly administrative nature of tasks within the CSF much of the organizational capacity from years 1-9 were dedicated solely to administrative processes. Long-term organizational planning, stakeholder relationship building & maintenance, program management, and project management tasks were largely in addition to an already maxed out staff time capacity. It would be difficult to take on a strategic planning process without any organizational capacity to do so, but on the contrary, without a strategic plan, there may be a lack of vision on how to overcome organizational barriers. I have been fortunate to have been supported in both my work with the CSF as well as academic pursuit, but I can imagine myriad scenarios where a student with competing priorities would be challenged to go beyond merely sustaining the administrative functions of similar organizations. This poses a unique dilemma: an organization that must be supportive of a rapidly evolving and innovating field while not having the resources to evolve and modernize itself. Recognizing the correlation between the internal

organizational function and types of / success of funded projects is a first step toward compelling internal transformations. An additional element, I believe, is the documenting and sharing of pertinent information so that similar organizations may have a more developmental focus from the onset, a crucial element for implementing and sustaining change in the highly transitory university, student environment.

As part of updating the CSF management and internal operations structure, a number of other sustainability funds were consulted and benchmarked (Table 3). While each program exists within a different context (academic conferences, countries, regions), it has been helpful to identify diverse organizational structures and gather a sense of their effectiveness in meeting strategic goals. These particular organizations were selected for comparison for the following reasons: a) they all had full time staff positions; b) they all have addressed growing management needs at some point in their development process; c) they prioritize active planning, strategy setting, and reporting (visible through their website and in-person communications). This is not meant to be a comprehensive list of organizations that meet these criteria and in part I have made contact or discovered these organizations through conferences and in-person contact, drawing my attention to their function and practices.

In general, university sustainability funds operate similarly at a fundamental level: they levy student fees to fund projects that are primarily led by students. These fees differ at each university and range anywhere from \$.35-\$.90 per credit. This amount varies based on the individual fee structure, student enrollment, and other factors unique to each university. Funds differ in their staffing structure and percentage of total funding allocated to overhead and operations. Many green funds begin with management by part time staff or student employees. They differ in how (and if) they adapt to increased administrative and management demand over time. Some have “professionalized” their staff by creating full-time, permanent positions (Table 3).

Universities also differ in the types of projects they fund and their funding criteria. The UC Berkeley TGIF recently adapted their funding criteria to prioritize funding for projects that have an environmental justice focus (TGIF, 2019). It was noted in a conversation I had with staff at Concordia University in Montreal, Quebec, that many of their projects took a “social” approach

to sustainability, while UW CSF's were more environmental/infrastructural. Western Washington University's Sustainability, Equity, and Justice Fund (SEJF) was renamed in 2018 from the "Green Energy Fund" to place additional emphasis on the intersections of equity, justice, and sustainability. In conversations with staff at the SEJF it was noted that they have seen an increase of projects with environmental justice themes in recent years. Amongst universities, funded projects are not categorized using a standard categorization, making it difficult to quantitatively compare projects. Going forward, linking projects with the Sustainable Development Goals could prove useful for sharing information on and comparing initiatives across universities. The types and complexity of projects that are received and awarded funding will also correlate to the capacity and management needs of an organization.

Speaking first hand, and from this observed trend of organizational capacity and overhead and its relationship to strategic planning, transparency, and active communications, under resourced sustainability funds not listed in this comparison appear to be ineffective in communicating their impact and potentially more importantly, helping to scale successful projects and organizational best practices to other organizations. Furthermore, by not addressing internal organizational capacity and the ability to effectively administer and communicate outwardly, a number of redundant development processes are taking place disparately creating inefficiencies in time, knowledge creation, and ability to solve pressing sustainability challenges. On the contrary, those that have addressed the "Nonprofit Starvation Cycle" in full, are setting the bar for the potential of organizational green funds.

Table 3. Organizational structure comparison amongst sustainability funds in North America. “Operations” includes overhead and all expenses other than project awards. Notes: Western Washington University’s Fund started in 2005 as the “Green Energy Fee” and was later renamed in 2010 and expanded to offer grants similar to other universities. The Fund still allocates \$50,000 per year to Renewable Energy Credits, its original purpose; The Campus Sustainability Fund per credit estimate does not include Student Technology Fee funding, though its 2018-2019 budget does; McGill SPF Intern is funded 50 percent by the SPF and 50 percent by the McGill Sustainability office. Sources: (Safconcordia, 2019); (SAF Operating Budget, 2019) (McGill, 2019); (TGIF, 2019); (TGIF Annual Report, 2019); (Western Sustainability, 2019). In addition, some data was sourced from direct communication with fund staff members. FTE and budget amounts are estimates only based on best available information.

	McGill University		Concordia University		UC Berkeley		Western Washington University		University of Washington	
	Sustainability Projects Fund (SPF)		Sustainability Action Fund (SAF)		The Green Initiative Fund (TGIF)		Sustainability, Equity, and Justice Fund (SEJF)		Campus Sustainability Fund (CSF)	
<b>Fund Inception</b>	<b>2010</b>		<b>2007</b>		<b>2007</b>		<b>2005*</b>		<b>2010</b>	
<b>Per Student Fee</b>	\$.55/credit Matched dollar-to-dollar by University		Undergrad: \$.25/credit Graduate: \$1.25/term		\$8.00/student/s semester		\$.90 per credit		\$.35/credit*	
<b>Est. Annual Budget 2018-19</b>	<b>\$983,568</b>		<b>\$205,000</b>		<b>\$400,000</b>		<b>\$450,000</b>		<b>\$555,000</b>	
<b>Est. Total Operations Costs</b>	<b>N/A</b>		<b>\$100,441</b>		<b>\$134,940</b>		<b>\$130,000</b>		<b>\$92,586</b>	
<b>% of Funding to Operations</b>	<b>N/A</b>		<b>49%</b>		<b>34%</b>		<b>29%</b>		<b>17%</b>	
<b># of Funded Projects since Inception</b>	<b>224</b>		<b>230+</b>		<b>230</b>		<b>N/A</b>		<b>183</b>	
<b>Funding Source</b>	Student Fees / Admin		Student Fees		Student Fees		Student Fees		Student Fees	
		<b>Est. FTE</b>		<b>Est. FTE</b>		<b>Est. FTE</b>		<b>Est. FTE</b>		<b>FTE</b>
<b>Staff Positions</b>	Fund Steward	1	CEO	0.9	Coordinator	1	Manager	1	Program Manager	0.8
	Fund Administrator	1	Project Coordinator	0.8			Program Coordinator	1		
	Comm. Officer	0.5	Financial Consultant	0.5						
<b>Student Positions</b>	SPF Intern	0.25*	Outreach Coordinator	0.5	Program Associate Lead	0.3	Projects Coordinator	0.5	Project Dev Specialist	0.5
					Program Associate	0.3	Projects Coordinator	0.5	Outreach	0.5
					Program Associate	0.3			Creative Assistant	0.5
	<b>Total</b>	<b>2.5</b>	<b>Total</b>	<b>2.7</b>	<b>Total</b>	<b>1.9</b>	<b>Total</b>	<b>3</b>	<b>Total</b>	<b>2.3</b>

The CSF has taken a multi-year approach to updating its management and administrative structure. As a starting point for this maturation process, I began by outlining the steps that had been taken prior to 2018 (now updated to show full timeline) (Figure 12). Comparing the external-facing organizational growth (Figure 6, 7,8 and 9) to the internal rate of change (Figure 13) was an important indicator for whether organizational growth was sustainable or straining internal operations. By FY17, the CSF had received its largest LOI and Full Proposal request to date and granted its largest total yearly award to the greatest number of projects since its inception in 2010 (Figure 8 and 9). In addition, in FY17, the CSF staff had over double the number of active projects (Figure 14) to manage compared to FY11. There was also an increase in student FTE related to outreach and design (Figure 13), resulting in an increased supervision responsibility for the Program Manager. While numbers related to project and fiscal activity had more than doubled by FY17, fiscal, project support/development, and program management capacity had not changed.

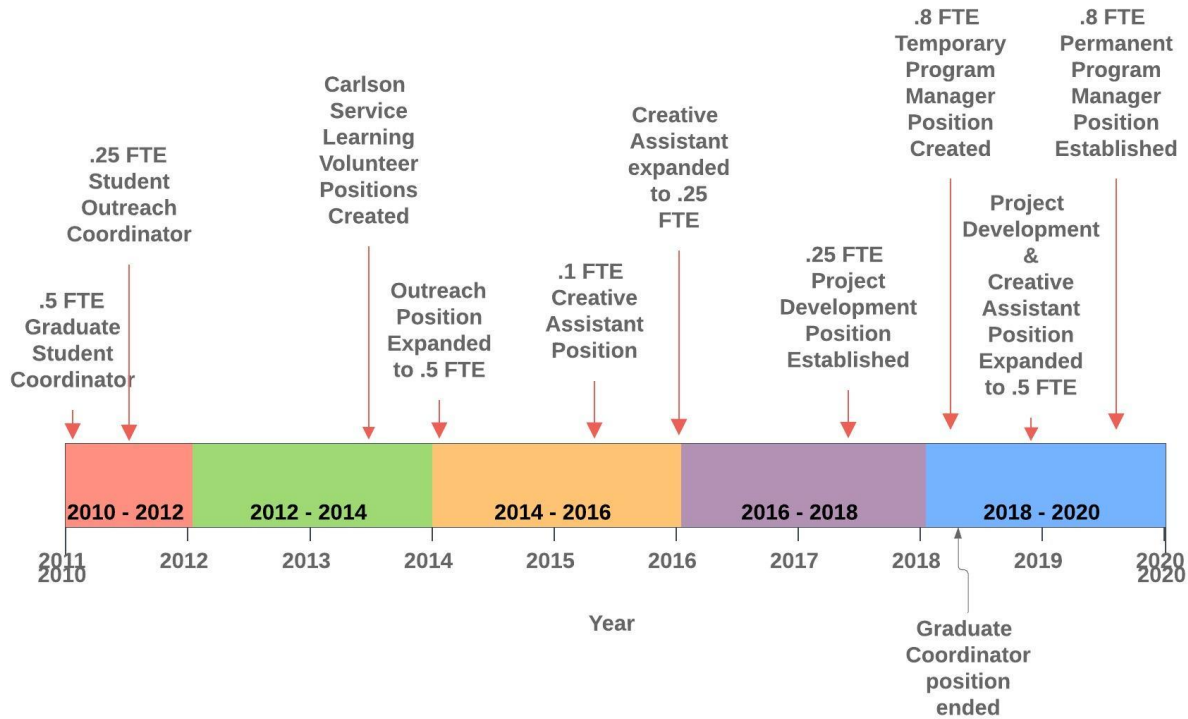


Figure 12. CSF timeline of organizational development from 2010-2020. Color blocks demarcate 2-year time periods.

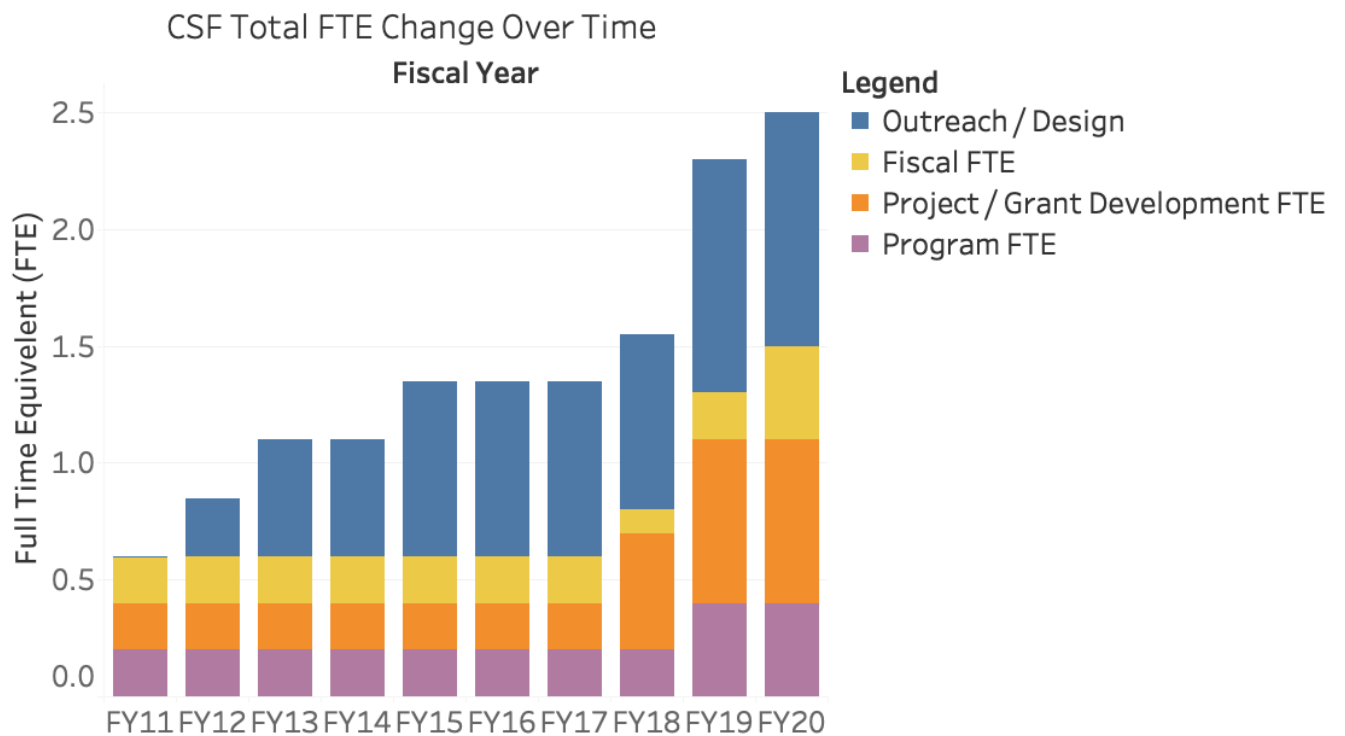
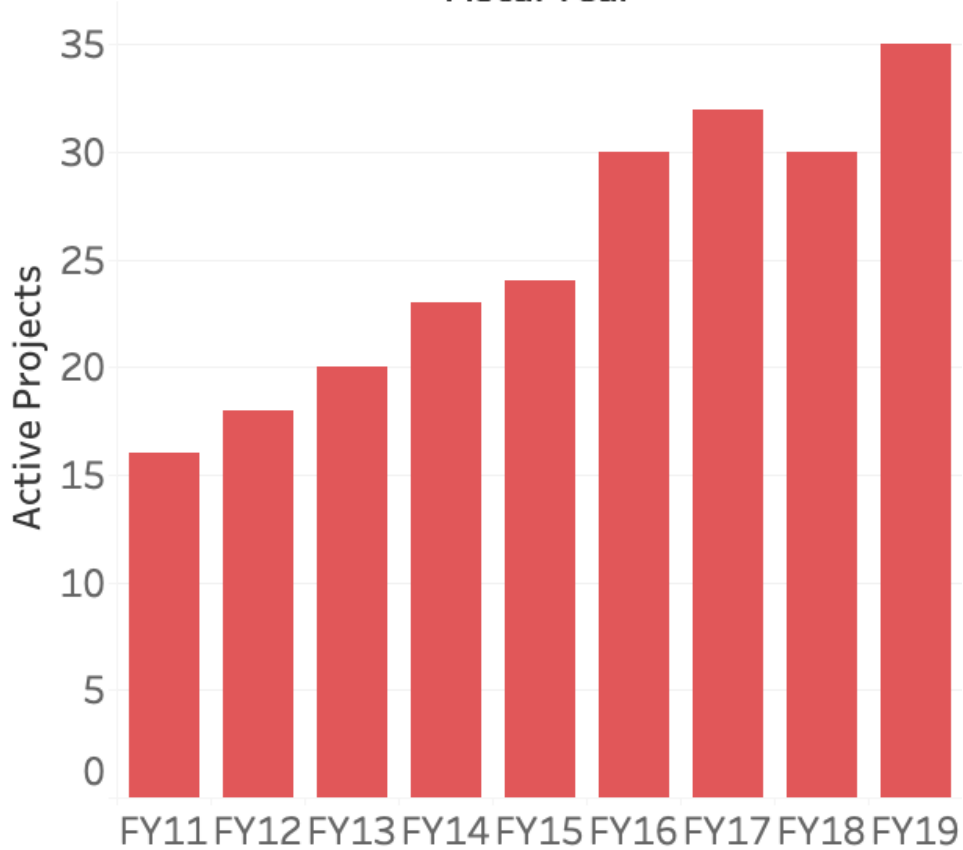


Figure 13. CSF Full Time Equivalent (FTE) from 2010-2019.

## CSF Estimated Active Projects by Year

Fiscal Year



*Figure 14.* CSF estimated active projects during a given year. Estimates based on prior CSF project tracking and budget reconciliation systems. More information on active project management in section “Management and Financial Sustainability of Projects.”



In FY18, to address the growing portfolio of active projects and number of yearly proposals, I consulted with the UW Sustainability office and CSF Committee to come up with a strategy for meeting this increased need for administrative and management capacity. A first step was taken by creating a student Project Development Specialist position at .25 FTE (Figure 12 & 13). I went on to create the roles and responsibilities (Table 4) of this position to specifically meet the needs of the growing project management, administrative, and coordination load placed on the CSF within recent years. To address the shortfall in fiscal oversight and programmatic / management capacity (Figure 13), in 2018, the CSF budgeted for a professional staff position in its yearly request to the SAF. A consensus was formed by the CSF and program advisors to transition the graduate student coordinator position into a temporary, 9-month Program Manager position (Table 5). The .5 FTE graduate student position was discontinued at this time as the primary responsibilities were no longer obtainable within the .5 FTE allotment. In 2019, a permanent, professional Program Manager position was created (Figure 13). While having the program fully managed by students provided intangible learning benefits, it was increasingly clear that level of responsibility, accountability, and complexity of the organization had outgrown the scope of solely temporary student workers. With the level of impact that projects had on UW's built and social environment, as well as fiduciary responsibility, it became prudent that an organizational structure be established that prioritized knowledge retention and adequately met the growing organizational management and administrative needs. The CSF has retained its emphasis on student leadership and involvement with the majority of its overall FTE sourced (Table 3) from student employees.

To better understand the capacity and distribution of workload for the newly created Project Development and Program Manager positions, project management and administrative tasks related to the CSF's funding cycle and active projects were mapped (Table 6 and 7). This analysis helps to demonstrate that even with increases in FTE, the CSF's ability to support Mini-grant, grants, and active projects is strained in a "average" year. This is useful in informing future decision-making within the organization to ensure the impacts of funded projects on internal capacity are well understood. It is also helpful for the CSF and its Committee to prioritize certain project types based on their short and long-term impacts on the organization and to help cadence projects over time based on their complexity. A further breakdown of active projects by complexity would help to more accurately assess their long-term impacts.

Table 4. Project Development Position [.5FTE] – Main roles, responsibilities, and estimated FTE breakdown.

<b>Project Management [.1 FTE]</b>	<b>Administration [.2FTE]</b>	<b>Coordination [.1 FTE]</b>	<b>Team building [.1 FTE]</b>
<p>Serve as all project teams’ primary point of contact for the CSF.</p> <p>Actively track CSF project progress, help teams troubleshoot challenges, and provide project management support and mentorship.</p> <p>Create resources for teams to follow legible steps for successful project application development (after grant writing), implementation, management, and meeting of grant criteria (i.e. resource books, web pages, etc.).</p>	<p>Collect quarterly project reports from active CSF projects.</p> <p>Help projects obtain required approvals, connect to resources, and improve viability of successful implementation.</p> <p>Notify projects at various points throughout application &amp; schedule required meetings.</p> <p>Organize project related submissions and forms in CSF database.</p>	<p>Attend weekly Committee Meetings and inform members on project updates, provide context for proposals, and help lead discussion.</p> <p>Assist in the solicitation and vetting of project proposals from UW students, faculty and staff.</p> <p>Monitor applicant submissions and communicate status to project leads.</p>	<p>Ability to take direction / instruction from senior staff.</p> <p>Proactive communication.</p> <p>Be an active, engaging, and available member of the CSF Team.</p> <p>Flexibility and willingness to adapt / prioritize based on team needs.</p> <p>Support and mentor members of the CSF staff and committee.</p>

Table 5. Program Manager Position [.8FTE] – Main roles, responsibilities, and estimated FTE breakdown.

<b>Planning and Programming, Management [.3FTE]</b>	<b>Administration   Management [.3 FTE]</b>	<b>Strategic Planning, Research, &amp; Direction [.2FTE]</b>
<p>Provides leadership and organizational strategy in collaboration with key administrative and academic leaders across the University.</p> <p>Guide the development of annual Services and Activities Fee Orientation &amp; Budget Document [~25 pages total] for yearly funding request [&gt;\$500,000 yearly] and ensure strong relationships and accountability to funding bodies with regular meetings and presenting to / updating their Committees on a quarterly basis.</p> <p>Facilitate high-level inclusion of CSF project teams within UW’s capital planning &amp; development processes.</p>	<p>Work collaboratively with Sustainability office on overlapping initiatives.</p> <p>Supervise and provide guidance to 3 part time student staff [Outreach, Project Development, Design]. Work with staff to set priorities that are adaptive to internal need and external opportunity. Provide guidance in developing work plans and delegate tasks as necessary.</p> <p>Support and organize the 7-student CSF Committee and work with chair to prepare weekly agenda.</p>	<p>Research and implement global best practices across a range of organizational procedures and structure.</p> <p>Guide the implementation of a 5-year strategic plan.</p> <p>Ensure diversity, equity, and inclusion are upheld in all aspects of the organization including bylaws, hiring, outreach, partnerships, etc.</p>

Table 6. Breakdown of Program Manager FTE by task related to project administration and management. Note, per Table 4, approximately .4FTE is available for tasks listed in Table 6. Total Program Manager hours based on 48 weeks / year worked. Average Mini-grant award size: \$861.64; Average project award Size: \$25,285.64.

<b>Program Manager</b>				
<b>Mini-Grant Projects (&lt;\$1000)</b>	<b># of Projects Average/Year</b>	<b>Est. Project Mgmt. Hours Per Project</b>	<b>Est. Project Admin Hours Per Project</b>	<b>Total Hours All Projects</b>
<b><u>Project Administration Life Cycle FTE</u></b>				
Communications	13		0.5	6.5
Fiscal Setup	13		1	13
Documentation	13		0.25	3.25
<b><u>Project Management Life Cycle FTE</u></b>				
Grant Development / Advisement	13	0.5		6.5
<b>Total Hours / Year</b>				<b>29.25</b>
<b>Total Hours/Project/Year</b>				<b>2.25</b>
<b>New Projects (&gt;\$1,000)</b>	<b># of Projects Average/Year</b>	<b>Est. Project Mgmt. Hours Per Project</b>	<b>Est. Project Admin Hours Per Project</b>	<b>Total Hours All Projects</b>
<b><u>Project Administration FTE Pre-Approval</u></b>				
Communications	22		0.5	11
Approvals	22	1		22
Documentation	22		0.5	11
Scheduling	22		0.1	2.2
Fiscal Setup	22		1.5	33
<b><u>Project Management FTE Pre-Approval</u></b>				
Grant Development / Advisement	22	2		44
<b>Total Hours/Year</b>				<b>123.2</b>
<b>Total Hours/Project/Year</b>				<b>5.6</b>
<b>Active/On-Going Projects</b>	<b># of Projects Average/Year</b>	<b>Est. Project Mgmt. Hours Per Project</b>	<b>Est. Project Admin Hours Per Project</b>	<b>Total Hours All Projects</b>
<b><u>On-Going Management FTE Post Approval</u></b>				
On-Going Support	30	15		450
Reporting	30		5	150
On-Going Fiscal Admin	30		5	150
<b>Total Hours/Year</b>				<b>750</b>
<b>Total Hours/Project/Year</b>				<b>25</b>
<b>Total Hours/Year (All Categories)</b>				<b>902.45</b>
<b>Total Program Manager Hours (.4 FTE)</b>				<b>768</b>

Table 7. Breakdown of Project Development Specialist FTE by task related to project administration and management. Note, per Table 5, approximately .3FTE is available for tasks listed in Table 7. Total Project Development Hours based on 40 weeks / year worked.

<b>Project Dev. Specialist</b>				
<b>Mini-Grant Projects (&lt;\$1000)</b>	<b># of Projects Average/Year</b>	<b>Est. Project Mgmt. Hours Per Project</b>	<b>Est. Project Admin Hours Per Project</b>	<b>Total Hours All Projects</b>
<b><u>Project Administration Life Cycle FTE</u></b>				
Communications	13		1	13
Fiscal Setup (CSF Only)	13			0
Documentation	13		0.5	6.5
<b><u>Project Management Life Cycle FTE</u></b>				
Grant Development / Advisement	13	1		13
<b>Total Hours / Year</b>				<b>32.5</b>
<b>Total Hour/Project/Year</b>				<b>2.5</b>
<b>New Projects (&gt;\$1,000)</b>	<b># of Projects Average/Year</b>	<b>Est. Project Mgmt. Hours Per Project</b>	<b>Est. Project Admin Hours Per Project</b>	<b>Total Hours All Projects</b>
<b><u>Project Administration FTE Pre-Approval</u></b>				
Communications	22		1	22
Approvals	22	0.5		11
Documentation	22		1.5	33
Scheduling	22		0.5	11
Fiscal Setup	22			0
<b><u>Project Management FTE Pre-Approval</u></b>				
Grant Development / Advisement	22	1.5		33
<b>Total Hours / Year</b>				<b>110</b>
<b>Total Hours/Project/Year</b>				<b>5.0</b>
<b>Active/On-Going Projects</b>	<b># of Projects Average/Year</b>	<b>Est. Project Mgmt. Hours Per Project</b>	<b>Est. Project Admin Hours Per Project</b>	<b>Total Hours All Projects</b>
<b><u>On-Going Management FTE Post Approval</u></b>				
On-Going Support	30	2		60
Reporting / Data Collection	30		2	60
On-Going Fiscal Administration	30			
<b>Total Hours / Year</b>				<b>345</b>
<b>Total Hours/Project/Year</b>				<b>11.5</b>
<b>Total Hours (All Categories)</b>				<b>487.5</b>
<b>Total Project Dev. Hours (.3 FTE)</b>				<b>480</b>

## Knowledge Retention & Organizational Memory

Knowledge retention and organizational memory are key concepts for the CSF as it is positioned as an organization that helps student, staff, and faculty teams navigate university policies and procedures that span both campus-wide and beyond. Knowledge retention is also vital in the support of on-going projects such as restoration sites that have establishment periods of 10 years or more and other systems with multiple-decade long life cycles. While project management tools and documentation processes can help with the transferability of related knowledge, a high rate of staff turnover and limited organizational memory can impact day to day effectiveness and hamper organizational development and long-term planning processes. Through the CSF's organizational development process, it has increased its years of cumulative knowledge and organizational familiarity by staff (Figure 16).

### **Factors that influence staff knowledge retention include:**

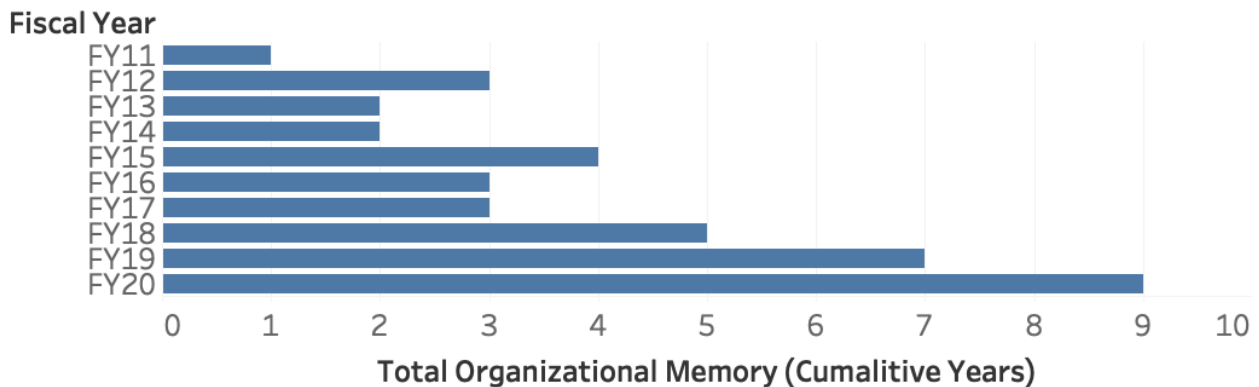
1. Rate of staff turnover.
2. Types, lengths, and number of positions available.
3. Organizational culture & retention.

### **This metric is useful for the following reasons:**

1. Program operational efficiency.
2. Ability to troubleshoot complex funded projects with a multi-year history of operations and maintenance.
3. Helping to legitimize student, grassroots innovation efforts by emphasizing longevity in a highly transient environment.
4. Stewardship of funds.
5. Serves a resource to the community.

An additional component to knowledge retention is knowledge development. To ensure that new staff members become quickly informed on important aspects of their role and the function of the CSF as an organization, creating materials that provide information on the broad scope of the CSF is important. Standard operating procedures and orientation materials are one way to get staff up to speed quickly. This document may also serve as a comprehensive overview for future members, particularly those with managerial duties, Committee Members, and more.

## CSF Staff Years of Cumulative Knowledge



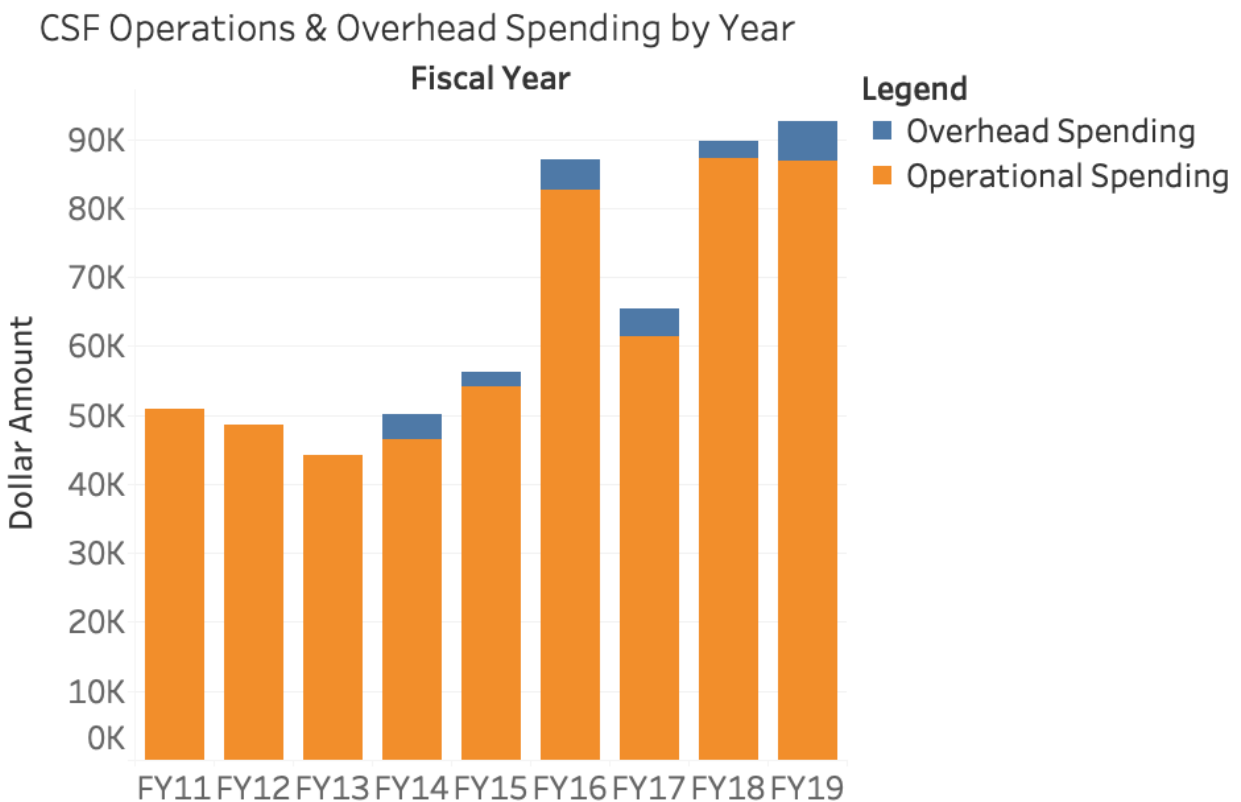
*Figure 15. Staff cumulative knowledge by year. This chart displays the total, cumulative “knowledge” and organizational familiarity by CSF staff, defined as total years worked by all CSF employees at a given time. Recent efforts to increase staff retention has resulted in a collective knowledge increase.*

Staff retention and organizational knowledge are key particularly in organizational development and strategic planning processes that take multiple years. It is difficult to make progress when losing a key employee and/or program lead every 1-2 years. However, having some turnover allows for fresh perspectives, skillsets, and contributions. It is important that the performance of key members is regularly evaluated to ensure the organization continues to operate effectively and that there is accountability amongst all staff members.

### The Business Case for Increased Operational Capacity

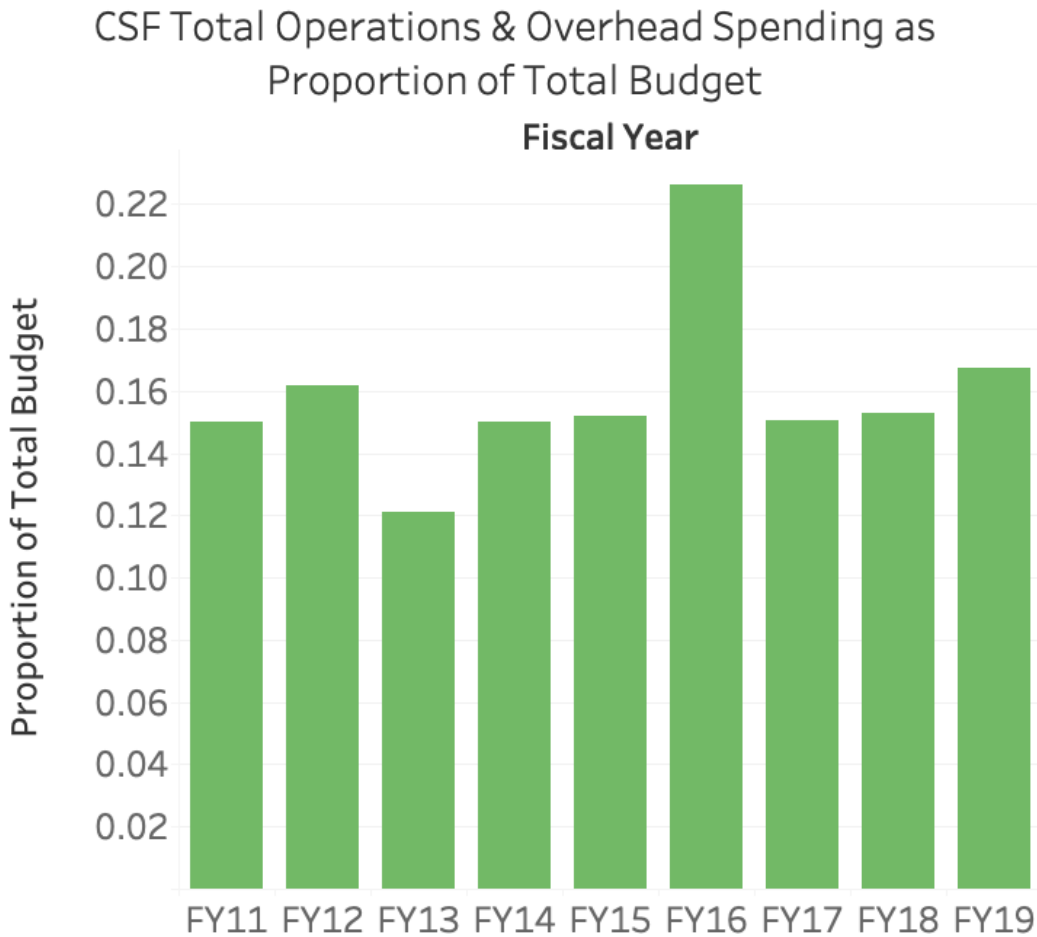
Many nonprofits are pressured through an unrealistic societal expectation to keep an extremely lean operations and overhead cost, typically under 20 percent, even at the cost of internal effectiveness. Coined as the “Nonprofit Starvation Cycle,” in a survey of 100 nonprofit executive directors, 56 percent reported that they were planning on decreasing nonprofit spending, leading to a misrepresentation of actual need, and in turn an unrealistic expectation from funders and stakeholders of operational needs (Gregory and Howard, 2009). High operations and overhead, particularly for individual donors, is often associated with a lack of direct impact. Lower overhead may mean a more tangible impact, but the quality and level of impact may be reduced with decreased management and operational ability. Over the past 10 years, the Campus Sustainability Fund has granted increasingly large amounts of funding to a growing number of projects (Figure 7,8 and 9). While the financial, program management, and project management needs continued to increase (Figure 7 and 8; Table 6 and 7) these needs were not being met

(Figure 13). Since FY17, the CSF has increased its operations and overhead spending with an increase in staff FTE (Figure 16). Between FY17 and FY19, the overall CSF budget had also increased from prior years (Figure 6). The operations and overhead percentage rate of the overall budget during this time frame has stayed relatively stable between 15-20 percent (Figure 17). Supporting operations and overhead needs have been and will continue to be vital in maintaining the CSF’s programmatic effectiveness as well as support of investments in projects. With CSF’s current project portfolio and funding going largely toward biodiversity and living systems (Figure 11), to ensure continuity, vitality, and the active management of these systems the CSF will need to maintain a high level of organizational capacity and ability to respond to project needs. The business case for increased overhead is a case for the livelihood and sustainability of the investments that the CSF makes.



*Figure 16. CSF yearly operational and overhead spending. CSF yearly operational costs including staff salary and benefits. Overhead costs after FY14 are primarily for marketing. Note, prior to FY14, overhead costs were combined with operations. FY16 saw a sharp increase in spending as there was a 3-month onboarding period where the incoming and outgoing CSF Coordinators were both employed.*





*Figure 17. CSF proportion of total budget spending on operations and overhead.*

#### Planning Process and Framework

The CSF [and I] grew into a strategic planning process somewhat organically, starting in the fall of 2017. Various strategic opportunities had been recognized by me and other organizational stakeholders. Some of these have already been discussed in prior sections. Still, with the organization being small, mostly student run, and most students staying for a maximum of 2 years in staff or committee positions (some as few as 6-9 months) it became clear to me that a central strategy plan would be necessary to establish continuity in documenting key barriers, opportunities, and initiatives for implementing strategy. A plan, in theory, would be resilient to student and staff turnover, and serve as an orientation for new organizational members, a reference point for existing members, and a platform for pivoting and checking back on progress toward reaching key goals.

Additionally, while organizations such as the CSF seek to create positive social and environmental change, many face myriad political, administrative, and structural challenges that make their long-term integration & success within university processes a unique challenge. In Medley and Obasi's *Creating Positive Change in Community Organizations*, the authors discuss Kurt Lewin's theory of change and its application for changing needs within an organization:

“In the moving/changing stage, organizational members are guided through an interactive process where they identify the desired new end state, including values, attitudes, and behaviors required to support the new organizational vision. New information, behavioral models, and skills that support the new reality are introduced to organization members at this stage. In addition, the organization may institute a fresh vision, revised mission, new work strategy, revamped operational structure, or new technology that will support the new direction and changes. Finally, at the refreezing stage, there is a critical focus on reinforcing and institutionalizing the new values, behaviors, and attitudes required for long-term operational success. The goal is to enable organization members to willingly accept and integrate new practices and reward systems that will reinforce the planned organizational change” (Medley & Obasi, 2008, p. 4).

A number of approaches to strategic planning for for-profit and nonprofit organizations have been developed and documented. One model called the “Strategy Change Cycle” in *Strategic Planning: Politics, Leadership, and Learning* outlines a 10-step process used by the Indiana University Bloomington Libraries (McClamroch et al., 2001), listed below:

1. Initiate and agree on a strategic planning process;
2. Identify organizational mandates;
3. Clarify organizational mission and values;
4. Assess the organization's external and internal environments to identify strengths, weaknesses, opportunities, and threats;
5. Identify the strategic issues facing the organization;
6. Formulate strategies to manage these issues;
7. Review and adopt the strategic plan or plans;
8. Establish an effective organizational vision;
9. Develop an effective implementation process; and
10. Reassess strategies and the strategic planning process.

A similar, more formal (and less “organic”) 10-step process was initiated by the UW’s Campus Sustainability Fund between the spring 2018 and summer 2019, though not necessarily in a linear fashion. The primary assessment was initiated in the spring 2018 with the CSF’s student Committee members and CSF staff. Key areas of opportunity were identified, and goal areas were outlined as part of the CSF annual reporting document. A “retreat” was held nearly a month later where members reported out on the outcomes of their inquiry into the following identified topic areas:

**Goal 1: Increasing project Autonomy**

- Creating toolkits for projects as a resource.
- Add long-term accountability section to application.
- Engage business students.

**Goal 2: Defining and Ensuring Diversity**

- Switch ASUW Senate liaison position to Office of Minority Affairs and Diversity Vice President’s Student Advisory Board (SAB).

**Goal 3: Expanding Operational Capacity**

- Increase internal overhead to match internal organizational need.
- Create roles & expectations for all positions, as well as work flow diagrams for maximum team efficiency, effective communication.

**Goal 4: Create solutions for long term maintenance of capital projects**

- Diversify funding sources to help fund both capital and operational costs.
- Establish a requirement for Preventative Maintenance (PM) and Standard Operating Procedures (SOPs) for capital projects.

Over the 2018-2019 academic year, the CSF Program Manager [myself] worked with the Committee Chair and Committee to help enact measures to meet the identified goals, as well as identify additional barriers and opportunities during each stage of the CSF application development and project implementation process. An initial analysis, similar to a Strength, Weakness, Opportunity, and Threats (SWOT) was conducted (Table 8).

Table 8. Breakdown of barriers (or “threats”) and solutions (or “opportunities”).

<b>Proposal Stage</b>	<b>Barriers</b>	<b>Solutions</b>
<b>Planning</b>	Ad-hoc inclusion of students in planning.	Encourage UW Facilities to integrate student engagement directly into planning and development process / CSF provides direct opportunities.
	Lack of documentation of UW planning.	Document UW planning process & make available to new projects.
	Lack of student time / project management experience.	Require projects to have existing project management resources or acquire with training. CSF identifies existing labs, courses, & other existing infrastructure for project support.
	Lack of appropriate maintenance planning.	Ensuring Preventative Maintenance Plans / SOPs considered at design/planning phase.
<b>Proposal</b>	Unclear application.	Ask for the information that we need.
	Lack of awareness among students of CSF.	Continue outreach to new groups.
	Need for additional trust and understanding between CSF and underrepresented communities.	Continuity & retention within CSF staff. Ensure supportive organizational culture. Toolkits & processes for committee selection, hiring. Minority representation within CSF staff / committee.
<b>Implementation</b>	Lack of communication amongst groups.	Create relationships with UW departments that touch the implementation process.
	Lack of high-level student representation on project executive committees.	Student representation within UW high-level decision-making.
<b>Maintenance</b>	Lack of financially sustainable mechanisms to ensure long-term ownership & commitment to projects.	Petition Provost for additional funds for maintaining sustainability / demonstration projects, establish revolving fund. Refine MOA / Asset Responsibility Matrix.
	Lack of technical knowledge / staff FTE to maintain projects.	Good demonstration & training for maintenance staff. Identify contractors when knowledge base / FTE capacity not within UW.
<b>Financial Sustainability</b>	Projects are either not self-sustaining or are unable to find another sponsor.	Collect and share metrics to tell the full story of CSF’s impact and the impact of its projects.
	CSF’s full impact is not clearly communicated.	

As of spring 2019, the CSF had made substantial progress on steps 1-5 of the strategic planning process outlined above, although there were a few unique challenges to ensuring adequate input had been solicited and that there was appropriate buy-in from the CSF's broad stakeholder base: ex officios were not present at "retreat" meetings though they are important stakeholders to engage in the CSF strategic planning process; due to a lack of administrative capacity / time in the 2018-2019 academic year, CSF project teams were not engaged directly in the strategic planning process; CSF alumni had not yet been engaged in the planning process.

In June 2019, the CSF brought together ex officios to solicit input on the CSF strategic plan. A list of key priorities for 2019-2025 that were jointly established by the Committee and I were presented to this group (Appendix B), as well as a draft of the strategic plan framework (Appendix C). Additional input was solicited, and a consensus was formed that an advisory Committee should be established to help further guide the setting and implementation of strategic goals.

In synthesis, the key areas of barriers and opportunities going forward (2019-2025) were identified:

1. Need for Standard Operating Procedures, improved "front end" administrative processes.
2. Internal capacity [while this has largely been addressed, additional fiscal support capacity is still needed].
3. Expansion and robust continuation of Diversity, Equity, and Inclusion efforts.
4. Better tracking of internal and project impact metrics.
5. Management and financial sustainability of projects.

## IMPLEMENTATION OF STRATEGIC PLAN

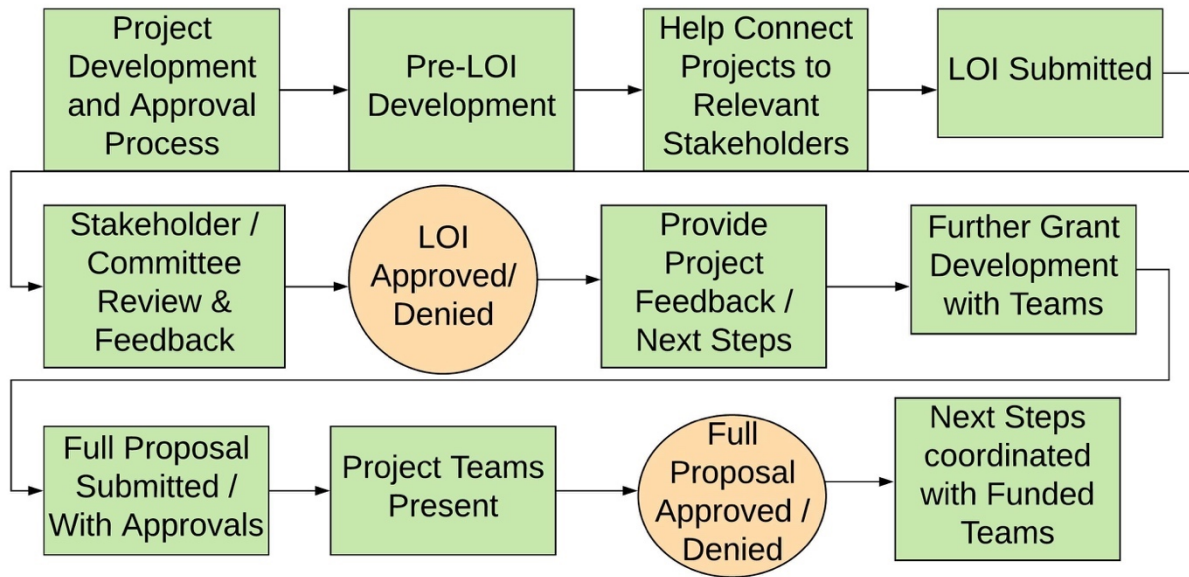
### Standard Operating Procedures

Standard Operating Procedures have been created to clearly outline processes, particularly useful in a high turnover environment. These processes allow for quicker staff orientation, a clearer understanding of roles and responsibilities, and greater organizational efficiency. The procedures are an important aspect of improving front end processes, both elements of the CSF strategic plan framework. By establishing Standard Operating Procedures as one of the initial strategies in meeting the goals outlined in the plan, organizational efficiency may be improved, allowing increased time for planning and reviewing progress toward meeting goals. A few key Standard

Operating Procedures were established for internal administrative processes. These reflect the responsibilities and roles of individual staff members and are geared so that each team member can quickly understand and visualize their role in the numerous organizational processes that happen on quarterly and yearly cycles. Creation of Standard Operating Procedures can be viewed as organizational infrastructure; they are items that will change very little over time and serve future members in their onboarding and routine tasks.

Establishing a Standard Operating Procedure [SOP] for grant administration is a vital component for campus sustainability funds. Figure 18 illustrates a general operating procedure for the grant administration process, while the CSF utilizes more detailed procedures for its day to day operating and coordinating between team members. A number of smaller steps are embedded in each stage and often dozens of e-mails to project teams, e-mail templates, and standardized responses and notifications. Creating a repository for these items so that they do not need to be recreated each time is key to reducing administrative load. With grant administration being an extremely time intensive process, finding ways to streamline processes will be key to maximizing organizational capacity for other vital functions. Grant management software platforms exist that can help automate and consolidate many of the associated processes and offer a potential solution for reducing administrative strain on sustainability fund organizations. While these software programs can be expensive, they may pay for themselves annually with time saved by staff personnel. The CSF has SOPs for other aspects of its organization including:

- Fiscal Administration
- Graphic Design Content Creation and Branding
- Newsletter Formation
- Event Planning



*Figure 18. Basic Standard Operating Procedure for quarterly funding cycle and grant administration.*

SOPs work in parallel with increases in overall staff FTE by helping to maintain management and administrative efficiency, though organizational roles, responsibilities, and processes must be well documented. Without SOPs, staff capacity may be increased only to be devoted to high administrative load and team coordination challenges. The CSF will need to continue to work to further refine SOPs and standardize administrative processes for planning, finance administration, and grant administration in the months/years to come. This will be essential to maintaining an effective, responsive, and capable program.

### Diversity, Equity, and Inclusion

Over the past 3 years the CSF has worked to ensure all aspects of its organization and project funding are prioritizing Diversity, Equity, and Inclusion (DEI). A number of key steps have been taken to date, but to completely ingrain DEI onto its organizational culture and processes will take time. When beginning my role with the CSF in 2016, it was conveyed by the prior year's Committee that DEI was a key priority, while there weren't specific goals or outcomes outlined associated with this priority. Since 2016, I have directed outreach efforts toward groups on campus that may not traditionally identify with sustainability as a concept. Furthermore, I've made substantial efforts personally to grow a dialogue with diversity leaders on campus, participate in activities and events that aren't necessarily branded as "sustainability" or

environmental related, and further understand the diverse language used to describe the concept of sustainability by myriad cultures, communities, and academic disciplines.

In somewhat of an experimental process, I've directed the rebranding of our organization to use design and visual language that is intended to communicate beyond a predominantly environmental audience through a combination of an expanded color palette and diverse symbology (beyond trees and windmills). I have worked to ensure that content for newsletters and promotions has been reviewed to ensure language is inclusive and avoids exclusion (binary language, ableist, geared to select audience, etc.). In the fall of 2018, the CSF's proposal criteria were amended by the CSF Committee to go beyond just "environmental impact" to "sustainable impact" which includes social sustainability: "cultural awareness & preservation, representation or engagement of underrepresented communities, diverse and interdisciplinary collaboration" and "environmental justice and equity" as a component.

Internally, increased focus has been placed on hiring processes for new staff members, and selection processes for Committee Members and volunteers. All hiring and volunteer documents have been updated using more inclusive and accessible language within the past 2 years and hiring and Committee selection processes have been refined to reduce bias and place greater priority on intersectionality and environmental justice as a fundamental organizational value. While the CSF has not quantified the impacts that these changes have had directly in the representation of our staff or volunteers, it is apparent to both me and other members of the organization that these steps have been effective in diversifying membership in a meaningful way.

Internal membership demographics are sensitive bits of information both to collect and to share in a manner that is respectful of the privacy of organizational members. For this reason, collecting metrics on this information is not a key priority. Instead, the CSF has taken the approach of creating internal infrastructure to ensure the CSF builds a diverse and engaged community while respecting and supporting each member's unique identity. I have worked to ensure diverse membership and representation extend beyond tokenism or a meeting quota, but that members and participants feel welcomed, heard, and valued throughout all of the CSF's organizational functions. Going forward, it would be useful to explicitly seek feedback from



volunteers, staff members, and project teams to ensure that they feel they are part of an inclusive organization and supported in their unique identities.

One area the CSF has been able to quantify its inclusivity is in its number and types of projects funded (Figure 19 and 20). In 2019, the CSF collaborated with the UW’s Resilience Lab organization to offer “Seed Grants” between \$500-\$2500 to projects working at the intersection of mental health, well-being, and other components of social resilience and sustainability as related to the Sustainable Development Goals (Figure 3). Between FY17-FY19, in response to increased outreach and other abovementioned changes, the CSF saw an uptick in “Diversity and Equity,” “Art,” and “Resilience and Wellbeing” projects primarily in its Mini-grant and Seed Grant programs (Figure 20). While the CSF experienced an increase from prior years in the number of projects funded in these project types, its overall dollar award to projects in these categories remain relatively small compared to its overall distribution (Figure 21). It is promising that a more diverse range of project types are seeking CSF funding resources, although the equity of funding distribution amongst project categories is a valid consideration for future iterations of the CSF Committee and staff efforts.

Grant (>\$1000) Funding by Category and Year

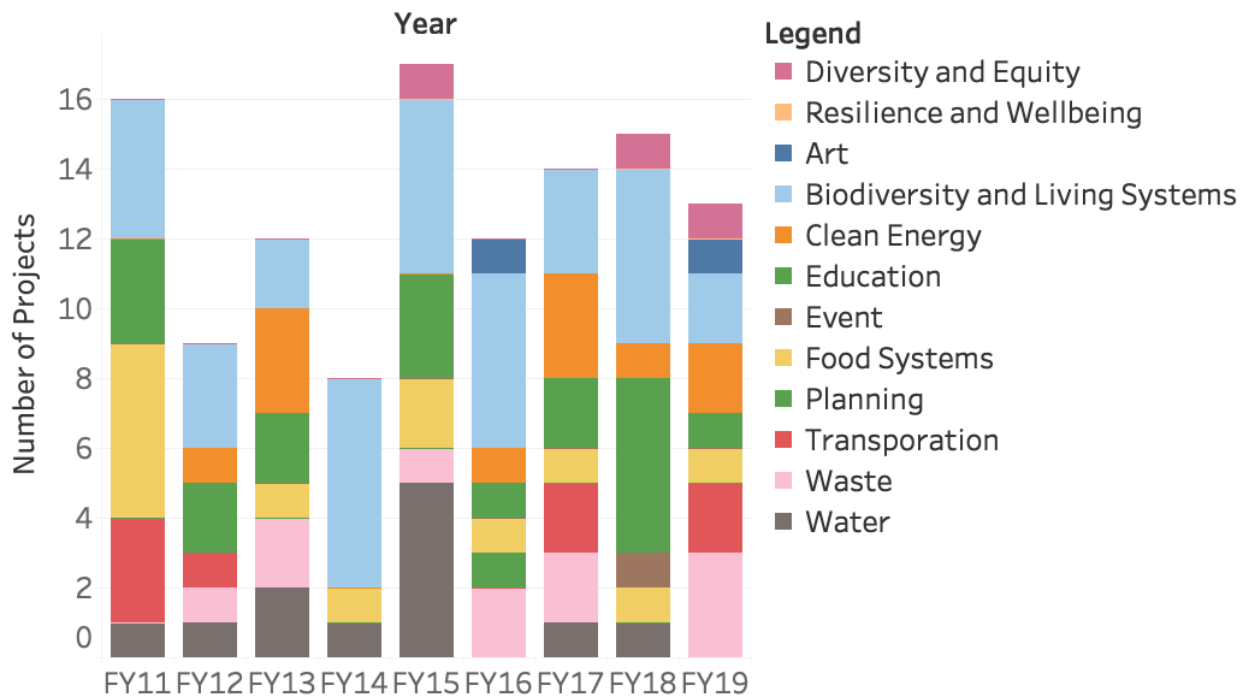


Figure 19. Yearly total number of projects funded by category for Grants >\$1000. Does not include Resilience Lab Seed Grants.

CSF Mini-Grant & Resilience Seed Grant Funding by Category and Year

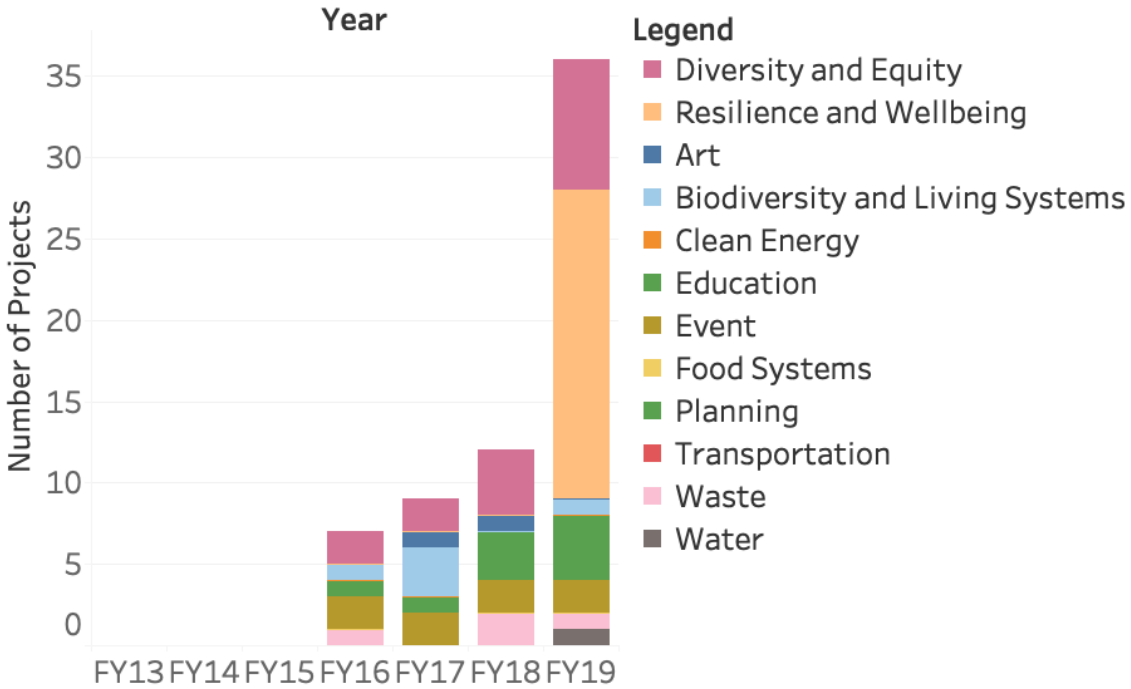


Figure 20. Yearly total number of Mini-grant and Resilience Lab Seed grant projects only. Does not include Grants >\$1000.

CSF Funding Project Category by Year

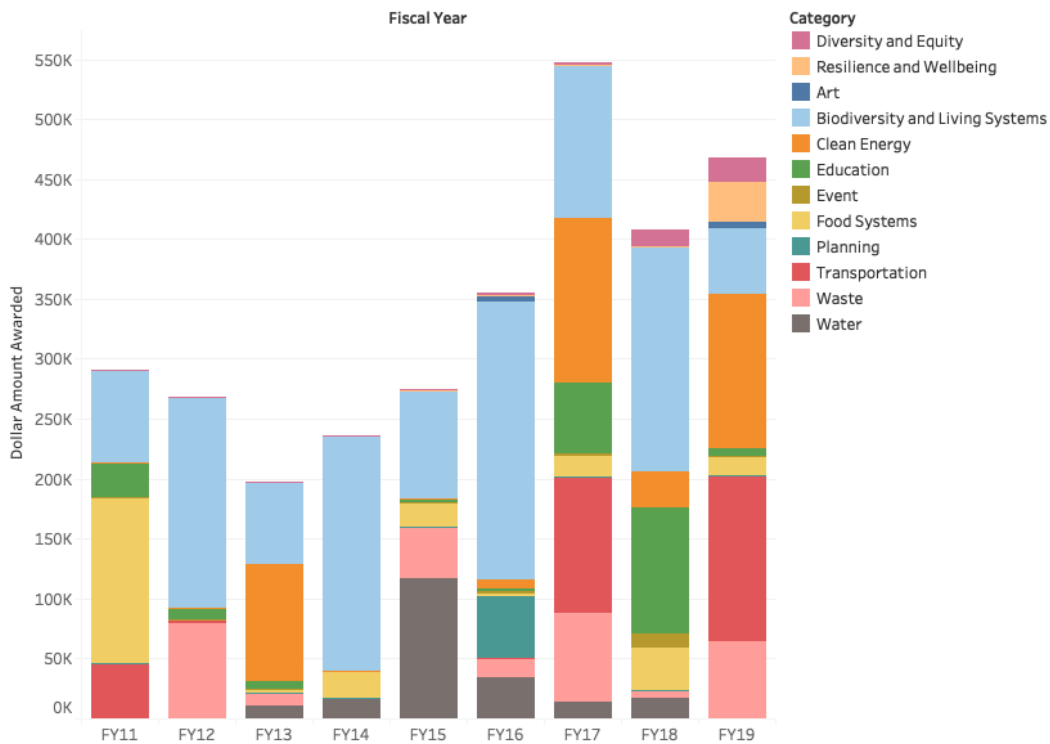


Figure 21. CSF funding award distribution by project category.

Going forward, the CSF will need to continue growing its understanding and trust with diverse communities on campus. By adopting the Sustainable Development Goal framework, the CSF can ensure that it is aligned with global efforts that prioritize diversity, equity, opportunity, and access. Additionally, while some tools have been created such as resources for diverse hiring and Committee selection, they must be operationalized to ensure that they become engrained in organizational procedure and culture. The CSF proposal criteria will also need to remain adaptive to the changing nature of sustainability and a two-way exchange will need to take place each year between the CSF Committee and staff to ensure alignment on Diversity, Equity, and Inclusion goals.

### Metrics and Impact

While much work has been done to-date to consolidate data related to the CSF's internal scope (much of this driven by this report), understanding the impacts that CSF projects have on the University environment is necessary to garner continued support from students, funders, and other campus stakeholders. Metrics are reported to the CSF by active projects quarterly in required report forms, but a central database has only recently been created. Metrics have not been standardized to best suit the CSF's broad project portfolio, or to align with the Sustainable Development Goals. Creating standardized metrics that both quantify and qualify the impacts that projects have both tangibly and intangibly (such as learning outcomes) is an essential next step both for transparency and accountability to the UW community and for understanding the effectiveness of funded projects for future decision-making. In summer 2019, the CSF brought on an Informatics student intern build out a projects metrics database and better understand metrics reporting from a User Interface (UI) / User Experience (UX) perspective to help optimize data collection.

### Management and Financial Sustainability of Projects

The management and financial sustainability of projects is not a simple topic to unpack. While CSF, as requested by its funders, is intended to be a "kick starter" type organization and not to "subsidize" university maintenance — this creates unique complications for projects with varying timelines for autonomy and full integration into University fiscal and operational processes. The CSF's typical protocol is to supply maintenance funding for the first 2 years of the project's operational life span. In the initial application phase, projects must submit a long-term management strategy, though this is not always straightforward with University fiscal biennium's working in 2-year periods, reluctance by departments to take on additional costs, and

fluctuation amongst project teams as members graduate, etc. The CSF helps to advise project teams on garnering additional support and thinking strategically about various funding opportunities and ways to support their project goals. I have also worked in collaboration with various project teams over past years to develop a Memorandum of Agreement Framework (Appendix D) for projects with complex responsibility, operational and maintenance needs. Still, some projects struggle to reach full financial sustainability while they have substantial measurable benefit to the University either in providing academic learning opportunities, resource conservation, biodiversity, student resilience, and more. The CSF can help projects advocate for themselves by assisting them in collecting relevant metrics to be communicated back to campus stakeholders.

Some CSF projects have a direct financial benefit to the University, while those benefits are often not recouped by the department sponsoring the project. For example, a project that saves water within an individual building may reduce the University's water bill, but the department / building will pay a flat rate for water based on the square footage of the building. In some cases, a project that saves water and money will cost a department more because while they bear the management responsibility and cost, they are not recipient of the project's financial incentives. This creates a difficult dilemma, particularly given the deferred maintenance is a billion plus dollar backlog at the University of Washington (Campus Stewardship Deferred Maintenance Update, 2018). Rethinking maintenance and operations strategy through the creation of a revolving loan fund or creation of university staff FTE dedicated to conservation and sustainability maintenance efforts will be necessary for CSF projects that impact the built environment. Additionally, at some point, the CSF may need to reanalyze its function as an organization — do all its funds need to go toward “new” projects or can sustaining existing, effective projects be deemed within its organizational mission? If the University cannot realistically support the maintenance and operations of some projects within its budget constraints, is supplying some on-going level of funding considered subsidizing? These will be important conversations with stakeholders in the coming months / years and will continue to define the CSF's role and programmatic function for the years to come.

To provide context on the Program Manager's role specifically related to project management, I have provided a few examples of my involvement in specific projects over the past three years.

These are referred to earlier in the paper when discussing “active project” management needs and in “Connecting Restoration Ecology with Cultural, Political, and Economic Dimensions.”

**Kincaid Ravine Restoration Area:** Since the fall of 2017, I have advised a student / faculty team from the UW’s Northwest Center of Livable Communities (NWCLC) on the history of the CSF-funded Kincaid Ravine natural area and worked to provide the team resources and connections to develop a Master Plan for the site. The Kincaid Ravine natural area is a 3.6-acre open green space on UW’s main campus that consists of native canopy, understory vegetation, and a ravine that forms a wetland near the center of the site. Since 2013, the CSF has funded over \$130,000 of restoration work at the Kincaid Ravine site led by Master of Environmental Horticulture graduate students and volunteers. While extensive invasive plant removal and native replantings were carried out over a 4-year span, a long-term management strategy has not been implemented. With this project being one of the CSF’s single largest investments to date, I’ve worked to help continue planning and programming for the long-term stewardship of the site by introducing the project to the Urban Planning and Community, Environment and Planning (CEP) degree programs at UW. With the help of a professional, licensed landscape architect, students have synthesized past documents and reports and will begin a Master Planning process in the fall of 2019.

**Biodiversity Green Wall at Gould Hall:** The Biodiversity Green Wall at Gould Hall was one of the CSF’s first large infrastructure projects to be successfully implemented at UW. Since their implementation in the fall of 2012, extensive research has been carried out by UW Landscape Architecture department’s Green Futures Lab (GFL) on the appropriate plantings for the wall as well as related animal habitat creation. The wall is partly irrigated by a cistern that collects water from the roof of Gould Hall. In 2015, the pump for the cistern failed and the wall’s plant life experienced total mortality. From December 2016 to April 2018, I worked with the project team and UW administrators to develop a Memorandum of Agreement that outlined maintenance, financial, and operational responsibility. In April 2016, after a budget amendment was passed by the CSF Committee to support the replanting of the wall and mechanical issues were addressed, I helped to host a replanting event that connected student volunteers with an opportunity to learn about the wall’s technical and biological systems. Over 400 native plants and 10 species were selected and planted. I connected the team with CSF-funded UW Native Plant Nursery and

helped to select and source plants directly from on-campus stock. The wall has continued to experience mechanical issues and in 2019, I connected the GFL with a local engineering firm that specializes in green infrastructure. I will continue working with the team to develop updated Standard Operating Procedures and a proactive management strategy to ensure the delicate, living system is well maintained and does not experience devastating mechanical failures.

**Sustainable Learning Space:** In the spring of 2016 the CSF received a proposal from a multidisciplinary team to create a native learning garden on UW's west campus. A team of students enrolled in the winter quarter 2015-2016 Landscape Architecture "Design/Build" course had designed a space for the north lawn in front of the Program on the Environment's Wallace Hall. During final CSF Committee deliberations on the project proposal in March of 2016, it was communicated by one of the CSF ex officios from the Office of the University Architect (within Facilities) that the location where the site was slated to be built was in a zone that would be potentially redeveloped as part of the UW's 2018 Campus Master Plan and it was advised that the CSF should not fund the project. It was noted by the Design/Build course professor that in the 25+ year history of the course, hosted primarily in locations internationally (and not on UW's campus), they had not experienced not being able to carry out the "Build" portion. To help ensure the project moved forward, I helped to convene various stakeholders and guide the group toward an alternative solution. Another nearby location was identified that had already been scheduled for improvements by UW Grounds. The site exhibited a defunct bioswale (natural rainwater conveyance and filtration system) and an overgrowth of Himalayan blackberry. I spearheaded a Memorandum of Agreement between all parties to come to a consensus on the contributions and long-term management of this alternative site. The Landscape Architecture students worked with Program on the Environment students and UW's Intellectual House, as well as a host of other campus faculty and staff to design and build the space. I helped to advise on the final planting plan for the site that featured a bioswale, rain garden (rainwater collection feature), and native plantings. I've continued to work with the project group to ensure the restoration plantings are well established and that the site is stewarded for the next 7-10 years to ensure plantings are well established. The site is currently maintained by UW Grounds and a CSF-funded student "Garden Steward." As of August of 2019, the site has successfully addressed some of the drainage issues previously experienced, the plantings are thriving (although many of the camas were eaten by rabbits), and blackberry has been controlled. The

Memorandum of Agreement will need to be revisited to ensure the site's management is prioritized in the coming years.

## Conclusion

In sum, the management aspects of campus green funds are largely overlooked, and the importance of adequately resourcing overhead cannot be overstated. The complex needs of mature organizations call for knowledgeable, strategic, and prudent oversight of organizational functions and project needs. The alternative, not taking a higher degree of ownership of both programmatic function and funded projects runs the risk of decreased credibility, efficacy of projects, and transparency of communications and reporting to key stakeholders. In addition, living systems projects such as restoration sites and green infrastructure will require the development and implementation of management strategies that will require staff support over time. Knowledge retention and capacity to support these projects will be essential for their ongoing management and vitality.

A strategic planning process can provide direction and grounding for green fund organizations that are often transitory in nature, face constant personnel turnover, and barriers that are cyclical but often not overcome due to knowledge gaps and the aforementioned mentioned characteristics. At a minimum, the planning process will help to document key barriers, opportunities, and other near-term and long-term goals in a format that can be easily referenced by future iterations of the organization. The process of strategic planning helps to build consensus amongst stakeholders, discover insights about operational efficiency / inefficiency, and ensure that the organization is being steered in a direction that is acceptable to both its immediate clientele, as well as entities its operations directly impact.

A number of challenges are intrinsic to the planning process for an organization with such a high degree of variables ranging from the types of projects it funds, number of projects, to the varying organizational culture that is routine with yearly membership changeover. With this, it is difficult to employ a one size fits all planning strategy to organizations with such a high degree of structural and functional diversity. It is likely, though, that with each of these organizations, managers and administrators will seek to improve their practices and processes to help increase both the success of the organization and the of the projects that they fund. It is of great hope that each of these organizations continue to make efforts to share their learning and help to build the

knowledge base for campus green funds — establishing them as legitimate catalyzers for innovation, creativity, diversity, and ideas that are needed to advance efforts in and response to urgent societal and environmental challenges.



## Appendix A:

Full Terms of Agreement between the Campus Sustainability Fund and Student Technology Fee for the 2018-2019 academic year. These terms have been critical in ensuring the goals, policies, and procedures of each organizational (CSF and STF) are met and that the CSF Committee can make informed funding decisions on the use of STF-granted funds.

### **Campus Sustainability Fund Special Project Terms**

Formed in 2010, the Campus Sustainability Fund provides grants to student projects that meet the following criteria: Sustainable Impact; Student Leadership & Involvement; Education, Outreach & Behavior Change; Feasibility, Accountability & Sustainability. The CSF will receive a grant of \$200,000 from the STFC for allocation during the 2018-2019 academic year.

#### Examples of acceptable allocation of STF funds include

1. Technologies that augment UW students' ability to engage in their educational experience.
2. Purchase of capital which is not intended for general student use, but is an integral part of a project which provides educational opportunities for students. Projects must provide students with the opportunity to gain knowledge, skills, or networking opportunities beneficial to their academic or career pursuits.
3. Specific examples of acceptable allocations include:
  - a. **Renewable energy technologies** (semi-permanent and mobile), including but not limited to: solar panels.
  - b. **Electric alternatives to gas combustion engines** (mobile), including but not limited to: electric bikes.
  - c. **New waste management technologies** (semi-permanent and mobile). including but not limited to: interactive recycling signage, biodigesters, on-site recycling or compost technologies.
  - d. **Educational displays** (TVs, monitors, etc.),
  - e. **Innovative green building technologies** (semi-permanent or convertible), including but not limited to: rainwater/greywater treatment, circadian lighting, composting toilets, performance monitoring systems.
  - f. **Energy and water metering technologies** (semi-permanent)
4. Purchase, shipping, and installment of real capital (such as examples mentioned above)

which is made available for general student use.

5. Technologies that fall under the STF's Infrastructure Policy would still be eligible to receive funding provided they are innovative and/or experimental in nature and would not otherwise be funded by UW Facilities and/or Capital Planning and Development.
6. Ownership of all physical products of CSF projects must be held by UW entities or student groups.
7. All use of funds must be in compliance with RCW 28B.15.051.
  - a. Funds must be used in the spirit of current frontier technology which may be decided at the STFC's discretion.
8. Projects that reduce costs or produce revenue for the UW must collect metrics on associated financial benefits and provide them to STF, Student Government Boards, and other relevant parties.

Examples of unacceptable allocation of STF funds include

- I. Payment of wages for students, staff, or faculty (this may be revisited in future years).
- II. CSFC administrative costs.
- III. Projects intended to provide ecological or sustainability benefits with minimal student involvement.
- IV. Non-capital expenditures such as transportation costs, permit fees, or services. Note: Costs which are immediately connected to the purchase of real capital such as professional installation can be considered capital expenditures.
- V. Infrastructure that would be funded by as part of normal university operations.
- VI. Consumables (as defined by STF Consumables policy)

**Reporting requirements**

CSF and STF representatives will meet on a monthly basis to ensure compliance with the terms of this agreement and to foster transparency and open communication between the two organizations.

Additionally, CSF will report once per quarter to the general STFC, providing the total amount of STF funds allocated and which projects received funding, and answering committee member questions. After Autumn Quarter 2019, CSF may transition to only reporting to the committee by direct request of STFC. Should the STFC decide an ad-hoc system is ineffective, a mandatory report will be reinstated. The STFC reserves the right to block any and all use of its

funds that violate internal policy or foundational principles of the technology fee.

**Continuity of Funding**

This agreement does not guarantee continuous funding further than the 2018-19 Fiscal Year.

Renewal of funds is subject to annual STFC Vote.

## Appendix B: CSF 2025 Priorities & Strategic Issues as agreed on by the CSF student

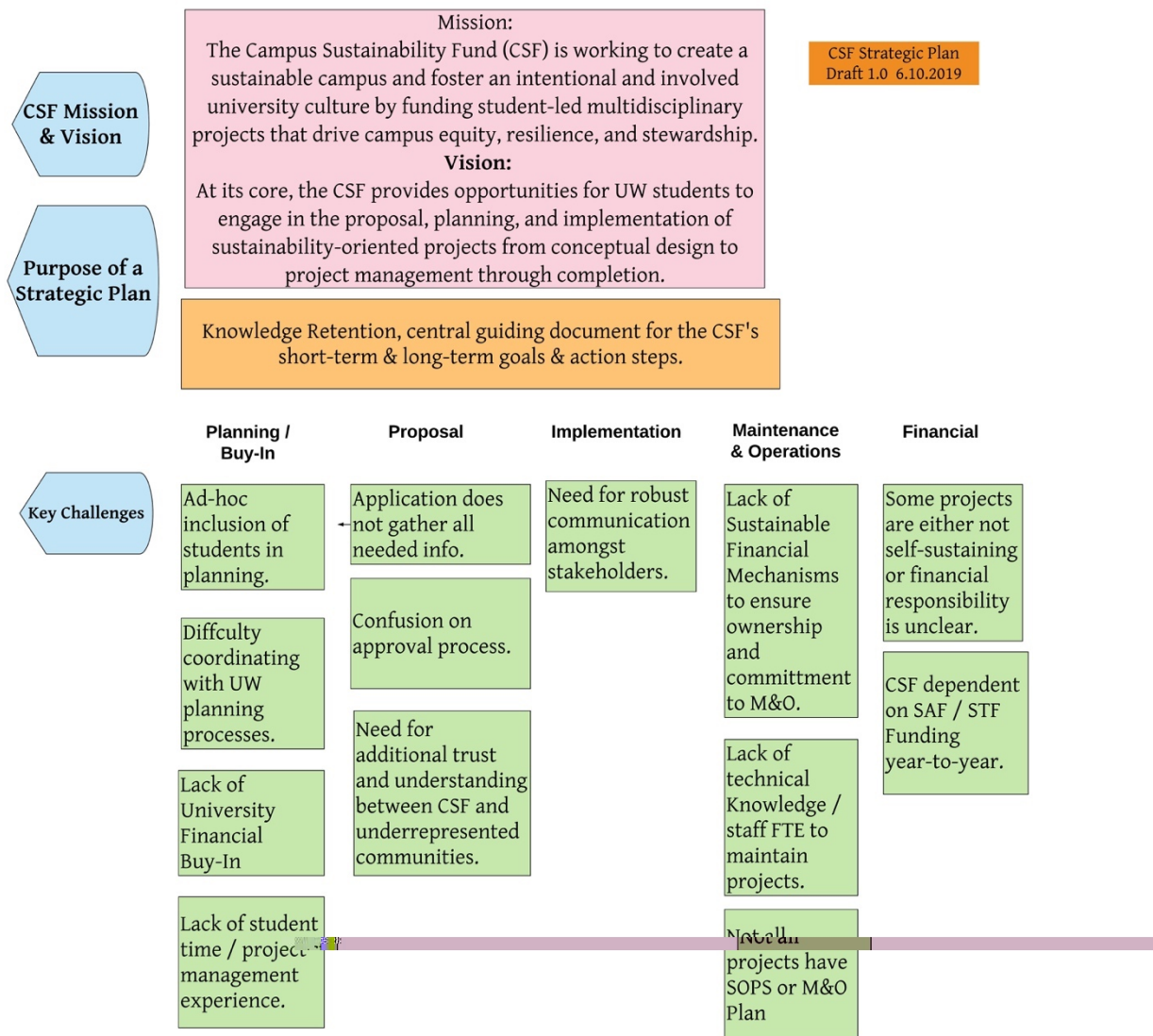
Committee in the spring of 2019. Drafted by CSF Program Manager and CSF Committee Chair.

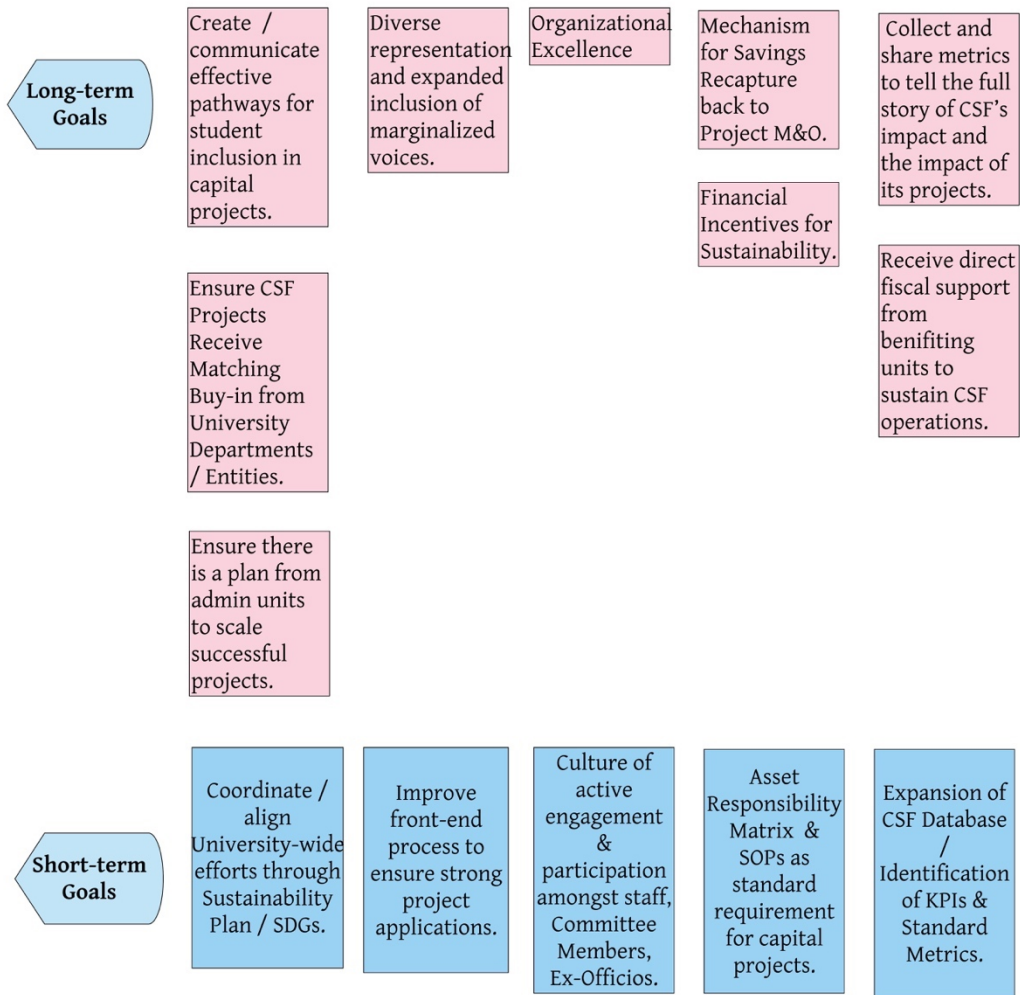
In the Spring of 2019, the CSF met and discussed the work of the fund so far and what is needed in the future to sustain and expand the impact of this work. The committee identified the following priorities and strategic issues:

- Investments that have a direct financial benefit to the University should have matching funding and support from the benefiting departments and / or campus units. Additionally, the CSF would like to see a plan from the University's administrative units to scale these investments in sustainability when they are successful.
- Establish a culture of Organizational Excellence amongst staff, committee members, and Ex-Officio's that fosters engagement, active participation, and is supportive of innovation and experimentation.
- Establish financial mechanisms to ensure that savings and revenue from CSF investments can be directed back into future CSF projects, maintenance and operations. In addition, the CSF will work with University partners to ensure there are financial incentives for departments / units that pursue cost-saving sustainability measures.
- Improve front-end process to ensure strong project applications.
- Develop robust metrics reporting for CSF-funded projects to document the impact of the CSF.
- Ensure diverse representation and expand the inclusion of marginalized voices within the staff, committee and the projects it funds. The CSF recognizes that projects are made stronger when they can address social, cultural, environmental, and economic priorities.
- The CSF recognizes the findings of the 5th Assessment from the Intergovernmental Panel of Climate Change and that a significant reduction in global carbon emissions will be required in the next ten years to avoid the worst effects of climate change.
- The CSF recognizes the UN's Sustainable Development Goals and the importance of an equity-centric approach to sustainability. The CSF will strive to connect local actions to global efforts and work in solidarity with similar organizations to pool resources, knowledge, and best-practices.
- The CSF will work with the UW Sustainability office in the development of a campus-wide sustainability plan.

## Appendix C:

Strategic Plan Draft Framework – a visual framework created by the CSF Program Manager used to outline key challenges and goals. This initial visual draft was created with the ultimate goal of having a strategic plan publicly available and transparent on the CSF’s webpage.





## Appendix D:

Outlines a template for a Memorandum of Agreement created by the CSF, [Unit B], [Unit C], and [Unit D] to document and track both the intended outcomes of and long-term maintenance and financial responsibility for infrastructural projects that have complex ownership, operational, and maintenance needs. Template created in collaboration with UW Sustainability, Green Futures Lab, and UW Facilities.

### Memorandum of Agreement for the “System Name”

#### **I. PURPOSE**

This Memorandum of Agreement (“MOA”) establishes the terms and conditions for the working agreement between the “University Department 1,” “University Department 2,” and Campus Sustainability Fund (CSF) regarding the ongoing operations, maintenance, financial responsibility and components of the “Project Name”.

#### **II. TERM OF AGREEMENT**

The Term of this Agreement shall begin when fully executed by the parties, and shall be renewed every “x years,” unless amended by written agreement or terminated earlier pursuant to the provisions hereof.

#### **III. BACKGROUND**

##### **1. Expectations and Agreements**

##### **2. Safety Information**

#### **IV. MAINTENANCE**

#### **V. SYSTEM COMPONENTS**

#### **VI. FUNDING**

#### **VII. EDUCATIONAL COMPONENTS/STUDENT INVOLVEMENT**

#### **VIII. DATA REPORTING**

### D.1 Breakdown of Maintenance Responsibilities

RO/DI Reuse System	Service Provider	Budget
Example 1: Filter Cleaning		Facilities
Example 2: Systems Check		Facilities
Example 3: Water Quality Check		Facilities



D.2. Asset Responsibility Matrix

Note: These are estimates based on best available information at this time.

Regular Maintenance Tasks	Total Expected Cost 25-years	Annual Cost	Labor Cost	Frequency	Funding Source	Priority 3 = Immediate 1 = Non-Essential
EX: Filter Cleaning	\$25,000	\$1,000	Included	2x Yearly	Facilities	3
EX: Filter Replacement	\$12,500	\$500	Included	5 Years	Facilities	3
EX: System Diagnostics					Central Zone	
EX: Cistern Check						
Large Item Maintenance						
Ex: Pump Replacement	\$12,500	\$500	Included	10 years	Facilities	2

D.3. Immediate Maintenance and Operations Tasks (M&O) Needed:

Maintenance Task	Completed By:

D.4 Detailed Preventative Maintenance (PM) Plan & Comments

RO/DI Reuse System	Frequency & Comments
Ex: Filtration	Ex: 2x Per Year —
Item 1	Ex: Quarterly
Item 2	Ex: 2x Per Year
Item 3	
Ex: Diagnostics	
Item 1	
Item 2	
Item 3	
Ex: Electronics	
Item 1	
Item 2	
Item 3	
Ex: Cistern & Pumps	
Item 1	1x Per Year — check for worn O-Rings
Item 2	

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