

**Campus Sustainability Fund**  
 Committee Meeting Agenda & Minutes  
 Tuesday, May 2, 2023 6-7:30pm PDT, Location: **ZOOM**  
 Join Zoom Meeting: <https://washington.zoom.us/j/5100844374>

Agenda		
Time	Item	Facilitator
6:00-6:10	<b>Mini Grant</b> <ul style="list-style-type: none"> <li>• <a href="#">KERATON</a> (Event Date: May 6) \$5000</li> </ul> <b>Budget Amendment</b> <ul style="list-style-type: none"> <li>• <a href="#">2023 TSA Night Market Sustainable Program</a> (Event Date: may 13) \$1000</li> </ul>	Neha & Tatiana
6:10-6:30	<b>Project presentation:</b> Cross-Cultural Collaboration at the Burke Meadow: Maintenance, Management and Education for a Living Exhibit (  <b>Q&amp;A</b>  <a href="#">LOI</a> <a href="#">Full Proposal</a>	Neha / project presenters
6:30-6:50	<b>Project presentation:</b> Energy, Information, and the New Work of Building Operations in the Digital Age  <b>Q&amp;A</b>  <a href="#">LOI</a> <a href="#">Full Proposal</a>	Neha / project presenters
6:50-7:10	<b>Project presentation:</b> ADA Approved Trail at the UW Farm: Promoting the Intersection of Environmental Justice and Sustainability  <b>Q&amp;A</b>  <a href="#">LOI</a> <a href="#">Full Proposal</a>	Neha / project presenters
7:10-7:30	<b>Project presentation:</b> Sustainable Stormwater Feasibility @ the ASUW Shell House  <b>Q&amp;A</b>  <a href="#">LOI</a>	Neha / project presenters

	<a href="#">Full Proposal</a>	
7:30-7:35	<a href="#">Vote</a> & Adjourn  Events: <ul style="list-style-type: none"> <li>- <a href="#">Intellectual House Symposium on Indigenous Food Systems (Friday and Saturday)</a></li> <li>- Keraton (Saturday)</li> <li>- UAW 4121 Social Justice Conference (Saturday and Sunday → students in the union)</li> </ul>	Neha

**Project Criteria Overview**  
[More detail on website](#)

<b>Criteria 1: Sustainable Impact</b>	<b>Criteria 2: Leadership &amp; Student Involvement</b>	<b>Criteria 3: Education, Outreach, &amp; Behavior Change</b>	<b>Criteria 4: Feasibility &amp; Accountability</b>	<b>Criteria 5: Budget</b>
Projects must improve the sustainability of UW's campus and/or operations. Encompasses social sustainability, environmental sustainability, biodiversity, environmental justice and equity.	Projects must demonstrate some substantial degree of student leadership or student involvement throughout the application and implementation process to be considered for funding. <b>Projects initiated by students will be prioritized.</b>	Projects must include educational and outreach components that help cultivate an aware and engaged campus community.	Applicants must demonstrate appropriate knowledge, timelines, skills, and guidance complete projects successfully. CSF encourages mentor or department support and line item in the budget for project management.	Project must demonstrate a well-researched and feasible budget that accomplishes tasks and appropriately compensates the involved team members along with a timeline to implement the budget

<https://csf.uw.edu/how-apply/funding-guidelines>

**Non Allowable Uses:**

- *Funding cannot be used for time and labor expended by UW faculty working unless it is outside the scope of regular faculty duties.*
- *Funding cannot be used for the purchase of gift cards or other forms of compensation to research subjects. While we encourage compensating research subjects for their time, this must come from another funding source.*
- *In general, funds cannot be used for food, drinks, or salable merchandise as part of project budgets. Some exceptions may be granted.*
- *Line-item requests for travel funding are not encouraged, but will be considered on a case by case basis.*
- *Funds shall not be used for research projects unless such projects include an actionable component.*

*CSF Bylaws + Protocols*

[Committee Bylaws](#)

[Robert's Rules of Order](#)

[Liberating Structures](#)

[CSF Committee Google Drive](#)

[2022-2023 Committee Documents](#)

*How to evaluate projects*

[CSF Project Criteria](#)

[Reference Sheets](#)

[Evaluation Rubric Example \(go to Rubric Template tab\)](#)

*Current projects + timeline*

[Workday Orientation](#) - <https://tinyurl.com/csf-workday>

[2022-2023 Proposal Deadlines & Timeline](#)


[CSF Resource Guide](#)

Attendees: Neha, Sohara, Tava, Tatiana, Esha, Emmy, Nat & Lauren

### Proceedings

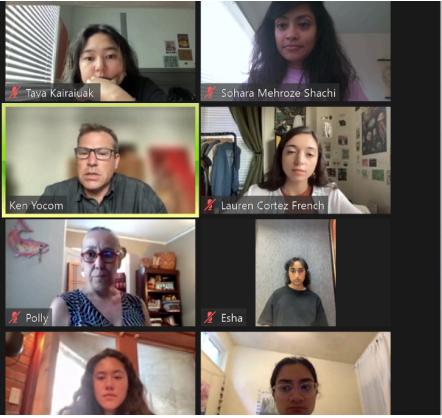

- **Presentation from Ken Yocom and Polly on cross cultural collaboration at the Burke Meadow: Maintenance, Management and Education for a Living Exhibit.**
  - Shared management between the project team and academic + professional partners. Continuing to partner with Oxbow for new planting and replanting
  - Engaged with UW food knowledge family
  - They have been invited to contribute to the journal of ecological restoration and have been featured on the Seattle times
  - Partnered with two elders from the Yakima nation to build fences for rabbits
  - The current proposal is to support an additional year of support for student collaborators and researchers, materials and event support. Received support from Burke Museum and Urban and UW. **Total ask from CSF: \$28,740**, mainly as a transition into the mellon grant for next year. The budget is for graduate student/partial employment, supplies, materials and events.

Screenshots from their slides for reference/records:



With support from the Campus Sustainability Fund since 2020 this project has:

- Hosted 12 - 15 work parties
- Logged 100s of hours of volunteer labor
- Received in-kind donations of labor and materials from project partners
- Participated in Burke Museum Events
- Supported a Design Workshop
- Invited to submit an academic article to *The Journal of Ecological Restoration*
- Will present at the UW Undergraduate Research Symposium

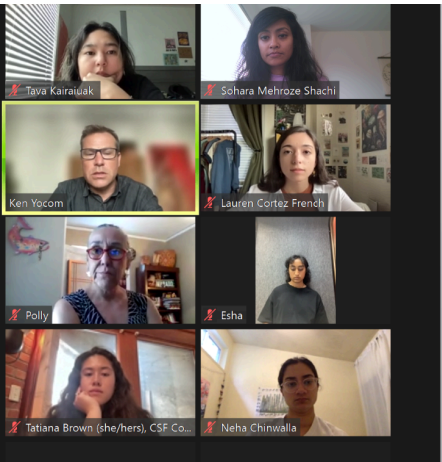



Education + Outreach

Formal and informal activities to promote education on regional nature and society relations are at the core of this project. This deeply collaborative work engages practices and perspectives from Indigenous knowledge, eco-feminist perspectives, and Western science methods. It requires a strong commitment from all partners with a focus on building and extending relationships and trust. The strength of this work is not in its outcomes, which are substantial, but in the ways in which the team works together to support the meadow and community.

Sustainability Challenges

- Food
- Living Systems and Biodiversity
- Environmental Justice
- Cultural Representation
- Social Justice



- **Project presentation by Dan Dimitrov (PhD student) on Energy, Information, and the New Work of Building Operations in the Digital Age**
  - Research goal is primarily to aid in UW's standardization and carbon emission reduction efforts with regards to utilization of IOT in facility management work and address knowledge gaps in integrating new tech in existing systems
  - The research team comprises of student project lead Daniel Dimitrov Faculty PI Carrie Sturts Dossick and research assistant (potentially an MS student)
  - Plan to collaborate with UW Facility, Maintenance and Management unit, business innovation and tech unit of UW FM. Collab with Digital Twin
  - The methodology involves conducting three cases:
    1. Campus wide energy meter monitoring program
    2. Automation window actuators + Founders lighting control occupancy sensors
    3. Automatic window tinting tech in health sciences building
  - They will conduct 10-15 expert interviews
  - Starts with a feasibility study, around June. Plan to conclude by September.
  - **Total ask is \$19832** (see screenshot for budget details). They have not had conversations with facility maintenance/other parties for funding.
  - Open to involving more students

Screenshots of slides provided below as reference:

## Research Goals and Objectives

### What is Known:

- Adopting Digital Twin → sustainability
- Lacking standardization
- UW → Energy/carbon reduction goals
- UW FM → new IoT, virtual models, new tech etc.

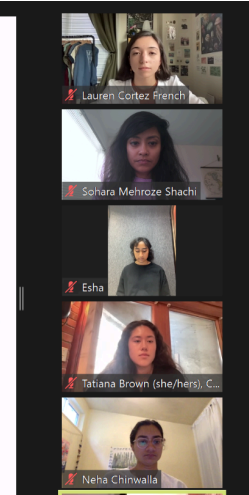


### Knowledge Gap:

- FM team using new tech in outdated ways
- Confusion around modern tech → industry wide issue
- Inadequate tech adoption strategies → non-optimal tech performance

### Our Research Focus:

- Innovation = People, Processes + Technologies
- Understand tension points, issues, organization, processes, etc. with novel IoT/DT based devices being used on campus
- Optimize FM work and organizational practices for optimal sustainable output - In the form of a tech. integration framework for UW FM



## Research Team + Student Involvement

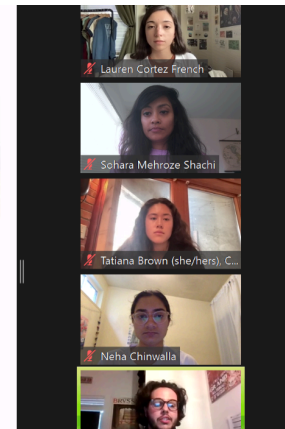
### Direct Research Team:

1. Student PI (project lead): Daniel Dimitrov, BE Ph.D Student
2. Faculty PI: Dr. Carrie Sturts Dossick, Dean of Research at CBE
3. Research Assistant (RA): TBD (in interview process), CM M.S. Student

### Research Group:

Support and collaboration from Digital Twin/IoT Research Group

- Project development has led to the formation of a student research/interest group
- discuss research, potential opportunities, and new advancements in the field
- Community around DT on campus



Zoom Meeting | You are viewing Dan Dimitrov's screen | View Options

## Methodology: Case Study Comparison

IoT Devices/Digital Twin Case Studies

National Expert Interviews

**Case #1:**  
campus wide energy meter monitoring program

**Case #2:**  
automation window actuators + lighting control occupancy sensors for Founders Hall

**Case #3:**  
automatic window tinting technology in Health Sciences Building

10-15 Expert Interviews

- Software & Owner Operations

Interviews from professional networks, i.e.,:

- Digital Twin Consortium
- National Institute of Building Sciences (NIBS)

**Focus Group Interviews**

- 60-90 min interviews with facility managers, O&M staff, operators, technicians, and upper management / sustainability strategists

**Direct Observation + Document Collection**

- Practices, collaboration, responsibilities etc.

Development of a "new work" framework for UW FM to capture changes in practices and newly introduced responsibilities in IoT/digital twin operations that lead to optimal energy management

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Participants | Chat | Share Screen | Record | Show Captions | Reactions | Apps | Whiteboards

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Zoom Meeting | You are viewing Dan Dimitrov's screen | View Options

Zoom Meeting participants list:

- Lauren Cortez French
- Sohara Mehroze Shachi
- Tatiana Brown (she/hers) C...
- Neha Chinwalla
- Dan Dimitrov

**Esha**

Esha

## Research Timeline + Budget

	UW Academic Quarter	Activity	Time
		Project Formation / Kickoff	Jun. 2023
		Begin meetings with Facility Managers and University Sustainability Managers for qualitative data collection	Jun. 2023
		Focus group interviews (FGI) - - Within each case with facility managers, O&M staff, operators, technicians, and sustainability strategists	Jun. - Jul. 2023
	Summer Quarter (Jun. 2023 - Sept. 2023)	Participant Observation - Meetings, day-to-day operations, interactions around tech, etc.	Jun. - Jul. 2023
		Expert Interviews: Building Digital Innovation Specialists	Jul. - Aug. 2023
		- Digital Twin Consortium	Jul. - Aug. 2023
		- National Institute of Building Sciences	Jul. - Aug. 2023
		Data Analysis	Aug. - Sept. 2023
		Final report writing	Aug. - Sept. 2023
		Conclusions and editing	Aug. - Sept. 2023
		Report findings and publish	Sept. 2023

**Summer Quarter 2023: Feasibility Study (per CSF request)**

**Note:** UW FM has given approval to extend research into academic year 2023-2024 as determined necessary by research team

**Total requested from CSF: \$19832.60**

Research Proposal Budget	Summer Quarter	Total:
Direct Costs		
<b>01 Salary Details</b>		
Role: PhD, Summer Hourly 2023	6543	24 hours per week
Role: MS, Summer Hourly 2023	5664.6	24 hours per week
Role: PhD, TBD Fall & Winter 2023		
<b>Salary Total:</b>		12207.6
<b>02 Benefits</b>		
Role: PhD, Summer Hourly 2023	1407	
Role: MS, Summer Hourly 2023	1218	
Role: PhD, TBD Winter & Spring 2023		
Role: MS Student Winter & Spring 2023		
<b>Benefits total:</b>		2625
<b>Personnel Total:</b>		14832.6
03 Other Contractual Services (ex. Interview transcription, publication support etc.)		2000
04 Travel (ex. conferences) - NIBS Building Innovation conference		3000
05 Student Aid		
<b>Total Other Direct Costs</b>		5000
<b>Total Direct Costs</b>		19832.6

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- Neha Chinwalla
- Dan Dimitrov

**Esha**

Esha

- **Project presentation by Toby Gallant: ADA Approved Trail at the UW Farm: Promoting the Intersection of Environmental Justice and Sustainability**

Proposal shared during the zoom call:

<https://docs.google.com/document/d/1YiccffIVMABD5uBFASUIAzZkKfEtXLDBUp>

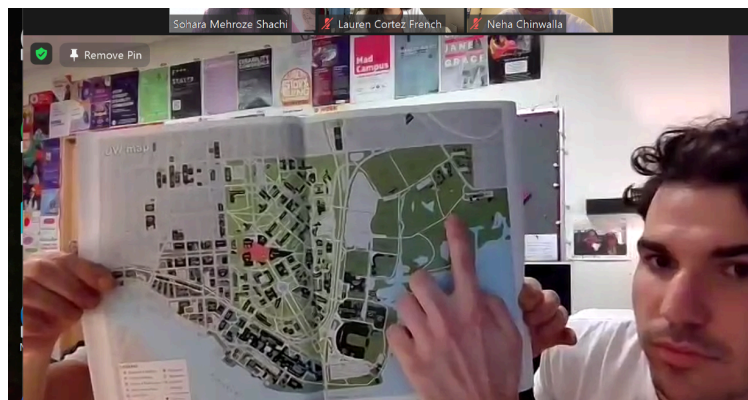
**The pitch in a nutshell:** Farm trails and pathways do not currently provide access for people with disabilities. If there were ADA pathways then people in wheelchairs could learn about urban farming and related issues, recreate, and help plant, harvest and consume the produce grown on campus. Only the farm site at the Center for Urban Horticulture offers the potential for ADA approved pathways, due to gentle slope, proximity to restrooms, handicapped parking and amenities. The UW Farm and students would like to help provide more access to the farm space, but lack funds to do so; hence they are seeking CSF's support.

The screenshot below is of the model showing the children's garden, resiliency tunnel, heritage orchard, native garden, world cultural kitchen etc.



The world cultural kitchen (third phase of the project) is being built now. Major costs are materials and labor. **Total ask from CSF is \$17,220.**

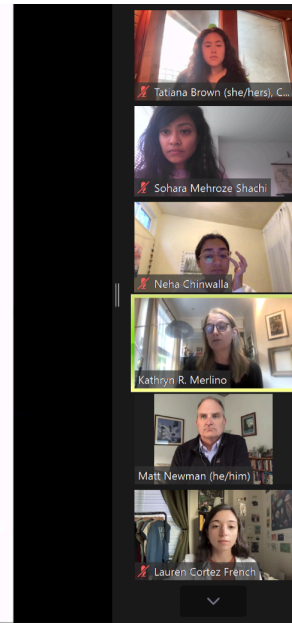
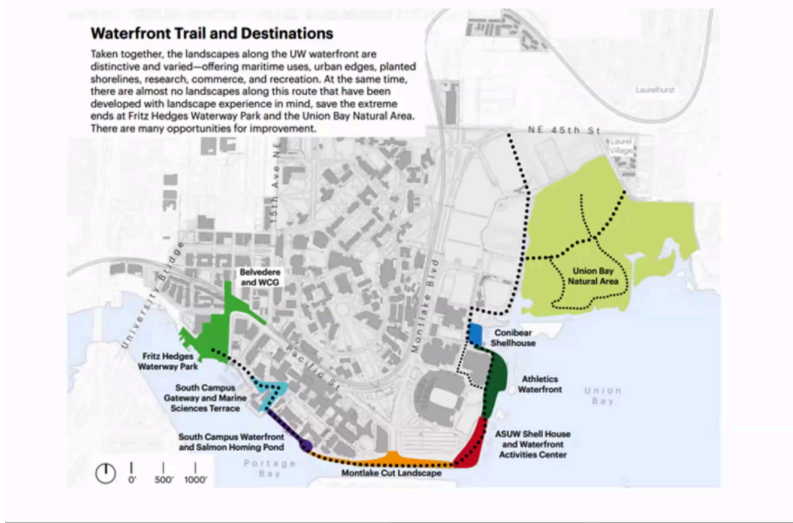
Screenshot below shows the location of the project:



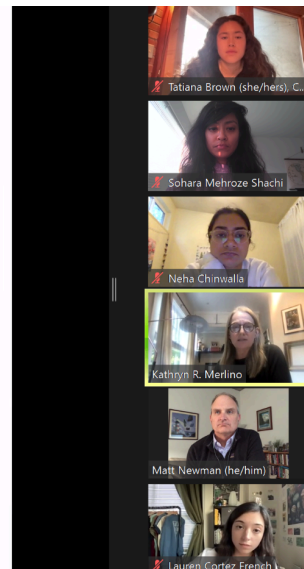
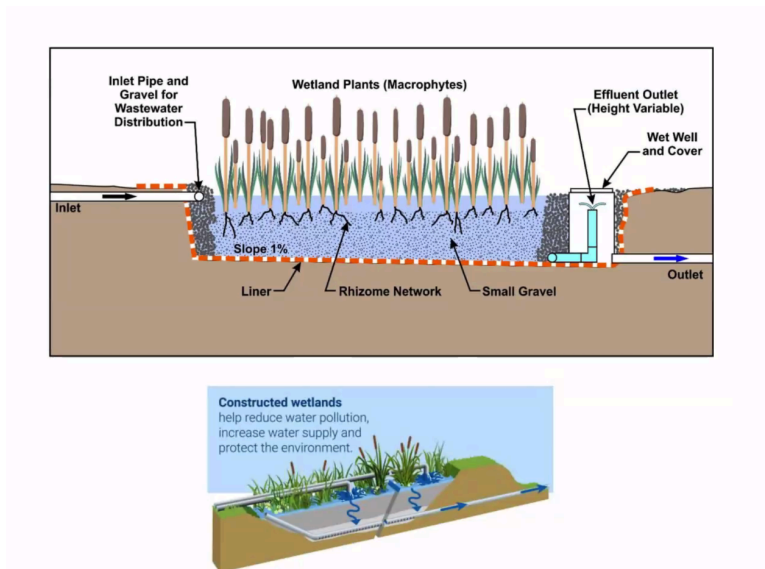
- Project presentation by Kathryn R. Merlino and Matt Newman: Sustainable (net zero) Stormwater Feasibility @ the ASUW Shell House**

- Fun fact: the shellhouse was built as a hangar for naval aviators during WWII. It is also an important indigenous property and home for Olympic crew champions. The objective is to preserve the site in an ecologically sustainable manner.

### Campus Master Plan



- **The pitch:** The current stormwater infrastructure is unknown & does not take care of the water on site. All the water falls into very old basins, is treated imperfectly and is routed directly into lake Washington, bringing in toxins, impurities and warm water, which is bad for salmon. The proposal is to treat the water onsite using indigenous plants that are bio remediators and construct natural wetlands. They aim to create a sustainability demonstration project.



- Students would be involved in landscape designing & identifying the right plants.
- Professor Merlino will share a copy of the presentation with CSF.



- Total Request from CSF is **31,959.00**
- **Voting outcome:**
  - Budget amendment for TSA night market and Keraton has passed.
  - Full proposal for Burke meadows, ADA, Shellhouse and energy buildings passed.
- **Upcoming events:**
  - [Intellectual House Symposium on Indigenous Food Systems \(Friday and Saturday\)](#)
  - Keraton (Saturday)
  - UAW 4121 Social Justice Conference (Saturday and Sunday → students in the union)