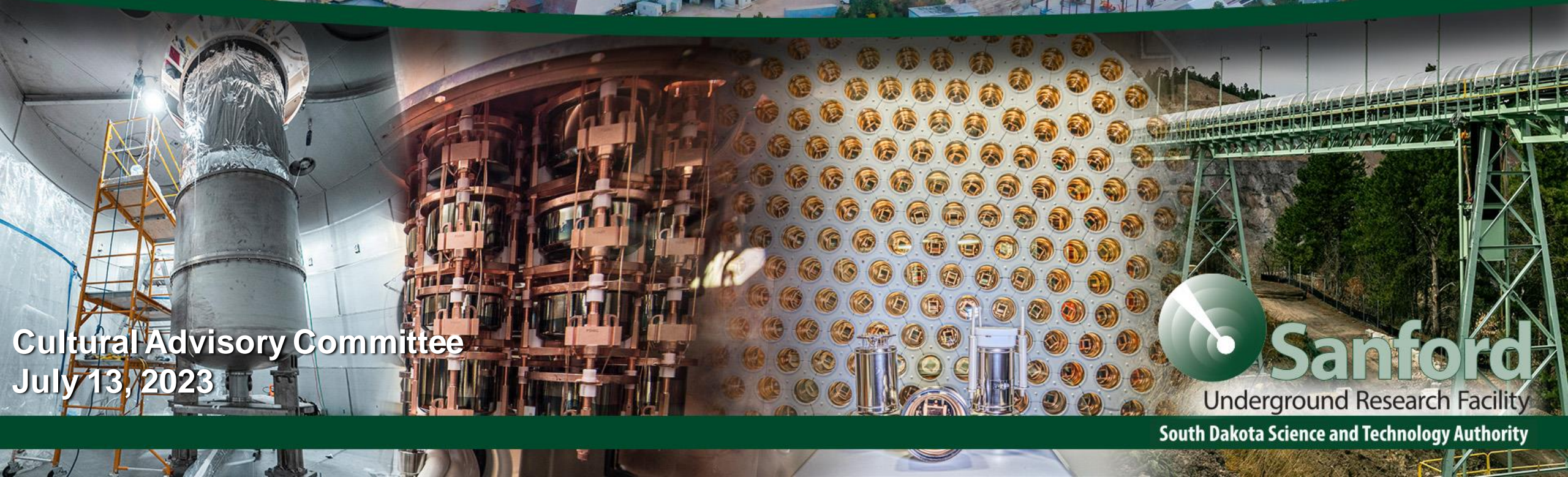


# IDEA (Inclusion, Diversity, Equity and Access) Office Update

Deb Wolf and Rochelle Zens  
Director of Outreach and Culture and IDEA Program Lead



Cultural Advisory Committee  
July 13, 2023

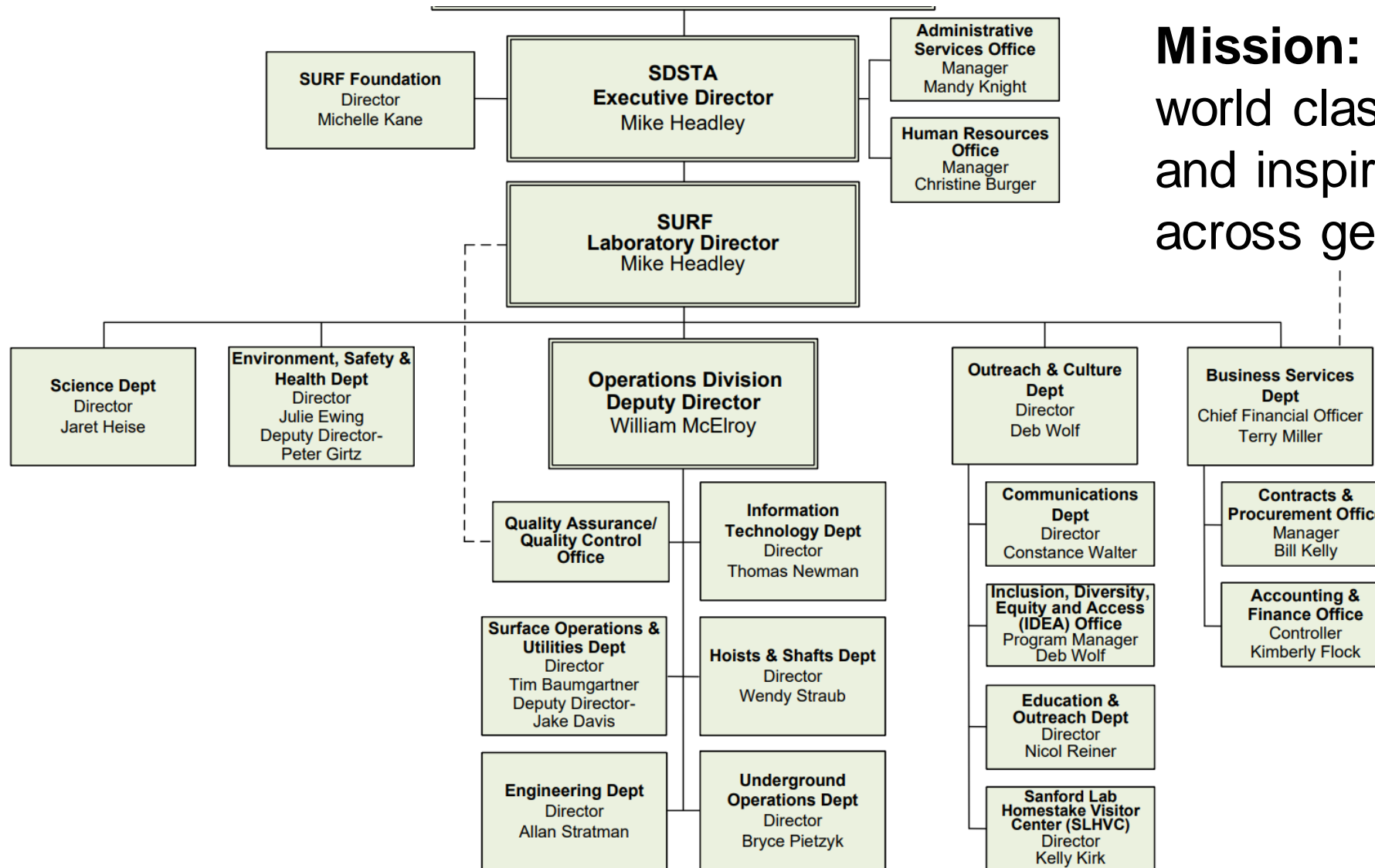


**Sanford**

Underground Research Facility

South Dakota Science and Technology Authority

# Outreach & Culture Updates – Mission



**Mission:** We advance world class science and inspire learning across generations.

# Outreach Visits

**December 14 – 16:** Lakota Nations Education Conference

**January 26:** STEM night at General Beadle School alongside E&O

**February 2-4:** SD STEM Conference in Huron

**March 2-3:** – CAIRNS training, visits to Red Cloud Heritage Center and Red Cloud Renewable

**March 14:** – Women in Science Conference at SDSMT

**April 12:** – Sitting Bull College

**April 15:** – BHSU Powwow

**April 25:** – Eagle Butte STEM Night

**May 12:** – Joined E&O and QuarkNet at Eagle Butte High School

**May 26:** Visit to Red Cloud Renewable with E&O and Communications Interns



# Outreach Visits



# Cangleska Wakan (Sacred Circle) Garden

- Construction has begun!
- Call to Artists document completed
- Outreach and Culture Department developing programming for the first year of the garden
- Language developed for potential grant opportunities, the website, promotional materials



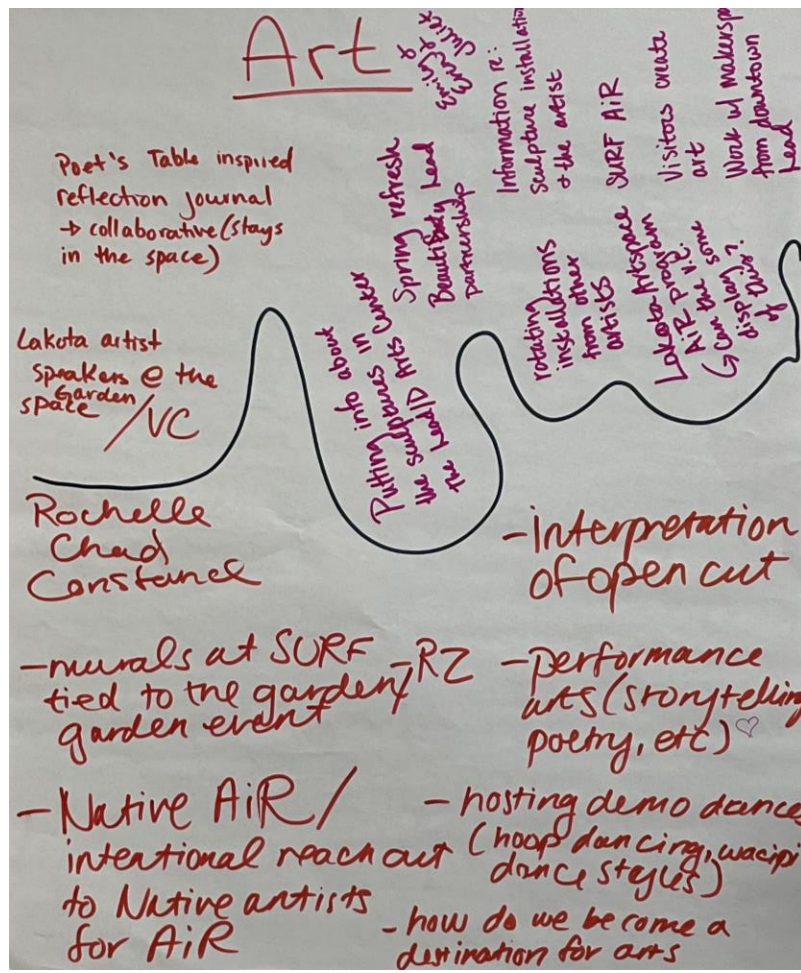
# Cangleska Wakan (Sacred Circle) Garden

- creating space for quiet reflection
  - library of books (history/poetry/etc.) that ppl can read while there
  - telling traditional Lakota stories → Wind Cave, Devil's Tower, Bear Butte, etc.
  - focus on educating international research groups
  - collaboration mtgs have a built-in time for a presentation/experience at the Garden
  - private event space for Lakota groups
  - encourage a "garden walkthrough" as part of GISB training
  - inviting groups (CAIRNS, Red Cloud Renee) to spend time
  - sharing Lakota language as a linguistics pov.
- Significance of medicine wheels to Lakota & other tribes of the region
- Info on respecting Lakota sacred spaces (not photographing/prayer bundles)

## (2) History Cont.

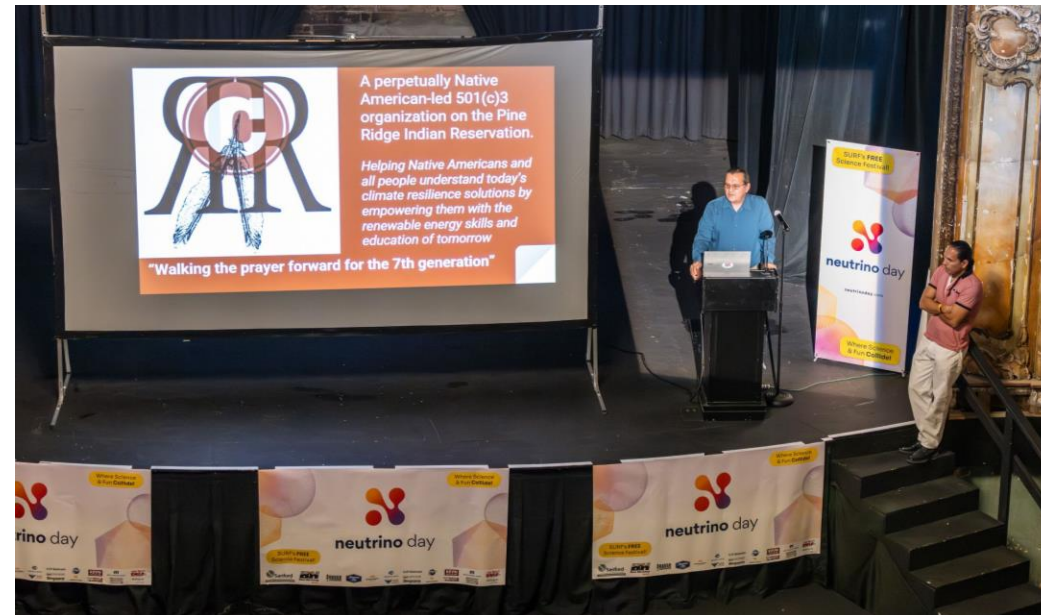
- history/meaning of design/artwork/symbolism
- history of animals/criters in space & human impact on them
- how historical conversations impact present events & future decisions
- geologic history & time → soil history
- how historic stories intersect → impact of interactions/meeting & cultures/space/use of space/land
- history of scenic views - historic photography - re-photography - buildings/landscape change

- timeline of Earth (science, geo), timeline of ppl groups
- oral histories, what these spaces looked like in different periods
- geological history of Sacred sites of the Lakota
- Treaty history, leading into mining history
- Reclamation after mining
- modern Lakota history - not "ancient" peoples → still here
- Nobel Prize/science history
- providing context for scale: scope of history of geology, of people groups, of science: helping kids (& adults!) to conceptualize lengths of time



# Neutrino Day

- Shared booth space with the SURF Foundation
- Seed packets distributed
- Worked alongside Communications to secure Chief Henry Red Cloud from Red Cloud Renewable as a Speaker



# Internal Work

- Coffee Breaks
- Lunch and Learns
- Book Study
- Frontiers in Physics article
- Visitor Center



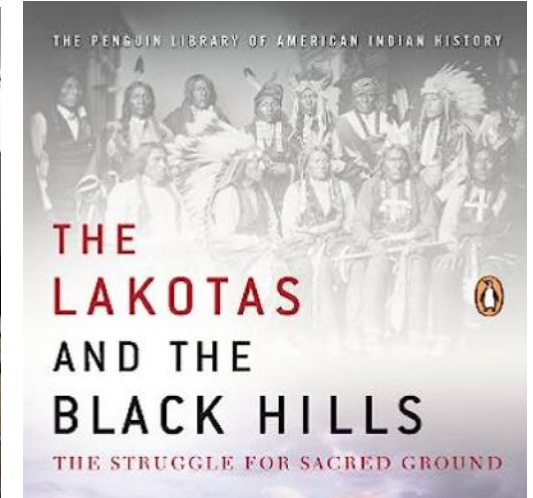
## Enhancing EDI in Physics: Perspectives from North American Underground Laboratories

Erica Caden<sup>1,\*</sup>, Samantha Kuula<sup>1</sup>, and Rochelle Zens<sup>2</sup>

<sup>1</sup>SNOLAB, Lively, ON, CANADA

<sup>2</sup>SURF, Lead, SD, USA

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# CAC Review Recommendations Status

ID #	Recommendation	Status
3	Discuss the medicine wheel and its use for: quiet time, education, celebrations, gatherings and to help remember to show respect for this sacred land.	Staff will continue to work with the Cangleska Wakan Working Group and other consultants to develop appropriate signage, programming, etc., for the Garden.
4	Coordinate with the Universities' Centers for American Indian Studies in the initial use of the Ethnobotanical Garden/Medicine Wheel.	Reach outs to tribal education and other organizations are ongoing. Staff are working to develop an internship related to IDEA, the Garden, and possibly the VC for Summer 2024.
23, 24, 29	<p>Encourage the staff to look for ways to emphasize the connectivity between STEM education and the arts and humanities in outreach, programming, and visitor center experiences. In addition to increasing use of technology to enhance individual experiences, develop ways to use the visitor center exhibits and space to facilitate intergenerational conversation about the intersections of place, history, culture, and STEM.</p> <p>Encourage the staff to consider and articulate the ways in which research undertaken at SURF connects to global and historical attempts to understand the origins of the universe and humanity and then leverage those connections to strengthen relationships with the communities surrounding SURF and to engage visitors and stakeholders in conversation.</p>	We have combined Recommendations 23, 24 and 29 as they are all deeply intertwined and will be addressed by IDEA and the Visitor Center and through meetings of the Star Knowledge Working Group as applicable.

# Outreach & Culture Update – CIRCLES Alliance Update

The Cultivating Indigenous Research Communities for Leadership in Education and STEM (CIRCLES) Alliance is a National Science Foundation-funded initiative to develop Native-based STEM education activities for K-12 and higher education students. The six-state Alliance builds on partnerships with tribal colleges and communities in Idaho, Montana, New Mexico, North Dakota, South Dakota and Wyoming to increase the engagement, involvement and success of Native students in STEM.

BHSU serves as the lead partner and Ben Saylor is the PI for South Dakota. SURF team is serving in a support role with Deb, Nicol and Emily contributing.



SD will co-lead 2 of the 6 Alliance Objectives (in partnership with ND):

- Objective 1: Develop a Curricular Resources Library of middle school STEM formal lesson plans and informal activities that are Indigenous based and provide training opportunities to in-service and pre-service teachers and program staff across the Alliance jurisdictions in Curricular Resources Library use. This objective addresses Goals 1, 2, 3, 6, and 7.
- Objective 3: Cultivate a positive outlook towards STEM, with a focus on K-12, through experiential and community-based learning opportunities that are culturally relevant. This objective addresses Goals 1, 3, 5, and 6.

# Outreach & Culture Update – CIRCLES Alliance Update

## Activities as of July 1

- Met with Cora Petersen and Nadia Deal (Cheyenne-Eagle Butte) to gather ideas and feedback on effective resources and professional development.
- Regular (bi-weekly) meetings with the North Dakota team to discuss next steps for shared objectives.
- Deann Kertzman (BHSU) – attending North Dakota Indian Ed Summit (July 8<sup>th</sup>) to build relationships.
- Deann K and Kelly (from ND) developed a new framework for evaluating existing curricular materials – in preparation for creating library of resources.
- Stephanie Higdon hired as CIRCLES Curriculum Library Director through BHSU.
- Cora Petersen has been asked to serve on the South Dakota CIRCLES Alliance advisory committee and is considering. John Red Cloud of Red Cloud Renewable will also be asked.



# Outreach & Culture Updates – Q4 Rocks

1. COMPANY LEVEL: Develop Sacred Circle Garden program initiatives and logistics to be implemented Summer 2024.
2. Hire and onboard a Director of Communications (as well as a communications specialist).
3. Gather data to inform creation of support plan for future DUNE collaborators.
4. Create resources and talking points for fundraising associated with outreach:
  - Davis-Bahcall Scholars
  - Summer Internships
  - Educator Professional Development Offerings
  - SLHVC
  - Sacred Circle Garden Care and Programming
5. Work closely with the VC and finance to change funding approach for SLHVC.

# Outreach & Culture Updates – Manager Trainings

Although organizations and companies nationally have created DEI offices, teams, and programs, the needle has moved very little when it comes to diversity and equity. We are not an exception.

Typically, organizations will use programs like bias training. However, research shows (nearly a thousand studies) that the only significant impact it has is on reducing litigation, but may, in fact, activate bias rather than stamp it out. (Harvard Business Review)

We took a different approach and focused on our Core Values, connected them to research associated with the characteristics of High Reliability Organizations, and worked to have managers discuss and develop their own processes for: listening, hearing from all voices, creating psychologically safe environments, etc.

This approach was poorly received. Feedback included: too academic, not practical, we don't know what it's like to be them, they felt treated like children when using equitable talking strategies. While critical feedback is always hard, we are not meeting their needs. Therefore, we are taking a pause.

We have limited bandwidth and expertise to spend the time needed to learn, readjust, replan, and facilitate effectively. We need to adjust our approach.

# Outreach & Culture Updates - Trainings

We recognize that we have training needs in the following areas in addition to what we already do (at minimum):

- 1) Onboarding training for managers – how to effectively bring new staff into the organization and support them as they learn skills, processes, and develop a sense of belonging.
- 2) Employment law for managers
- 3) Growing new leaders and supporting veteran leaders: providing and receiving feedback, listening skills, having hard or "crucial" conversations, building trust, quality collaboration, etc.

We will be working with HR Manager Chris Burger as well as our ESH training team to determine our next steps. We know we will need additional external support for this work.

There is not yet a timeline established – but it will be discussed – near term – in our ELT meeting.

# CAC Review Recommendations Status

ID #	Recommendation	Status
32 Open	Continue to facilitate IDEA training for all managers on a monthly basis and develop a strategy for involving more staff in IDEA efforts and training.	<p>Update: Monthly workshops with content of "core values" scheduled.</p> <p>Jan-May 2023 focused on core value of safety. Used high reliability organizations research as foundation.</p> <p>Planned transition to core value of care for others in June 2023 – on hold.</p> <p>Staff feedback causing re-evaluation of approach.</p> <p>Looking to transition from "required" manager training to "opt in" training for any staff interested.</p> <p>Will bring in external support as well.</p> <p>Looking for additional recommendations.</p>