Collections Management Plan
for the Outdoor Collections of the Botanic Garden of Smith College
“Engaging in the campus dialogue, collaborating with partners across the college, serving the interests of the entire campus community, and putting Smith students first is how we will maximize our impact on the world.”

125 Years in the Making: 2019–2024 Strategic Plan for the Botanic Garden of Smith College
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Mission Statement

The mission of the Botanic Garden of Smith College is to foster environmental and social justice through teaching and learning about plants, people, and place.

We do this by:

• Curating plant collections that help us tell stories about plant and human diversity
• Training students to be informed and impactful change agents
• Preparing educators to develop effective, interdisciplinary, learner-centered experiences
• Welcoming visitors to explore, learn, and contribute their knowledge
• Cultivating spaces and landscapes that stimulate thought, foster well-being, and facilitate collaboration

Document Purpose

The Collection Management Plan establishes salient and actionable steps to transform our collections and collection management strategies in service of our mission. The proposed projects consider an honest assessment of our current state, are rooted in both institutional and global frameworks, and have been designed to optimize the collections curated and managed by the Botanic Garden of Smith College for their capacity to serve Smith College’s values, strategic priorities, and expected learner outcomes.
Embracing an Active and Holistic Approach to Curation and Collections Management

“The past half century has ushered in a paradigm shift, among both botanic gardens and institutions of higher education. Both are grappling with legacies of structural racism, unequal access to opportunity and resources, and environmental harm. These roots penetrate the very foundation of our institutions, shaping every aspect of our work in ways both conscious and subconscious.

New approaches and philosophies for critiquing and countering these historically dominant narratives are gaining traction and proving their value to today’s educators, learners, and organizational leaders. Not only is what we are doing changing, how we are doing our work is also changing with a growing emphasis on conscious, action-focused approaches to enhancing equity, social justice, and environmental justice.

At institutions of higher education, this work includes:

- Using fields of cultural critique (gender studies, feminist theory, environmental justice, intersectionality, and anti-racism frameworks, among others) to assess the institution itself;
- Encouraging deep learning with pedagogy that reinforces theoretical knowledge with reflections of personal, lived experience as well as an appreciation for the lived experience of others; and
- Developing the skills that students will need to be effective communicators, change agents, and thought leaders.

At botanical gardens, this work includes:

- Changing the composition of living collections to facilitate storytelling from more diverse perspectives;
- Celebrating local, participatory conservation and de-emphasizing the display of rare, token exotic specimens;
- Changing operations and plant-care methods to minimize environmental harm; and
- Fostering the role of botanic garden staff as momentary stewards of plants, places, and landscapes that will outlast our tenure, rather than as owners of these resources.
The Botanic Garden of Smith College lies at the convergence of the awakening that is happening in these two arenas. In 2019, our Strategic Plan became a roadmap to ensure alignment of our work and resources in support of the college’s mission to build a more inclusive and effective learning environment. As noted, key aspects of this work are the composition of our living plant collections and the ways these collections are cared for.

**Active Collections**

We will be adopting an active collections approach for this work. An active collections approach emphasizes that collections should be used for some stated purpose, and not simply held in perpetuity. This approach embraces the desires and perspectives of stakeholders, allowing collections to be changed to better reflect audience needs and encourage community participation. In adopting this lens we seek to maximize the impact and value of our outdoor collections and spaces by connecting them to the things that matter most to our learners, educators, researchers, and community members. By investing in our understanding of what our stakeholders most need from us and from our collections, we can better curate plant collections of value to those who rely on us.

**Intended Outcomes**

We are not starting from scratch in these efforts. Through a number of critical planning initiatives (including the development of our current strategic plan and the adoption of a new mission statement) which included stakeholder needs assessments, we have identified the following four areas for collection transformation, even as we remain open to embracing the co-curation of our collections with stakeholders.

**CONSERVATION IN ACTION**

In this new strategy, conservation efforts will be anchored by global plant conservation initiatives, but focused on regional and local efforts. By making this work highly visible and crafting conservation efforts around experiential learning opportunities, we can help students to understand that human degradation of natural ecosystems is not a distant problem, but is instead an urgent problem of here and now. They will also witness the impact of their own work in repairing this damage.

**CONFRONTING HARMFUL LEGACIES**

The active collections strategy also seeks to foreground the lasting impacts of colonization and the ways botanical gardens were used to subjugate peoples and lands. Our work to address structural racism represents part of a process that our department and the community we serve are undergoing together. Building active collections means no longer conceptualizing our collections being populated with “collectables”, but as a manifestation of our shifted priorities and values.

**DEVELOPING SPECIALIZED COLLECTIONS**

The Botanic Garden of Smith College Collections Policy enumerates the desire to prioritize Specialized Collections for their critical value to key stakeholder groups. A thorough assessment of how existing collections align with the stated purposes for the Specialized Collections revealed several opportunities for growth, collaboration, and projects that will provide students with valuable experiential learning. This plan prescribes actions that will seek to optimize the relevance and impact of the Curriculum, Endangered Species, Research and Germplasm Collections.

**ENHANCING ECOSYSTEM HEALTH**

Author Robin Wall Kimmerer reminds us that many indigenous cultures built healthy lasting relationships with the botanical environment by embracing the concept of reciprocity with the living environment. She writes that in some Native American languages, the term for plants translates as “those who take care of us,” and we must rethink what it means to take care of them. All aspects of our collections care and operations must reflect this ethos. As we aim to build a more equitable world through our action, we must extend the scope of our care beyond the bounds of the here and now and into the distant and future environment. We will consider the impact of all the things we do and all the things we choose not to do, and how each choice advances or hinders our purpose.
Process and Approach

Collections and Practices that Engage in the Campus Dialogue

This document is the culmination of three years of targeted work assessing and examining the purpose of the Botanic Garden of Smith College as an academic botanic garden, a botanic garden in the 21st century, and as the steward of one of Smith College’s unique teaching collections. It was developed by Botanic Garden of Smith College curators, gardeners, arborists, and educators. It was also informed by ideas, priorities, insights, and questions raised by colleagues, learners, visitors, and educators at Smith College, as well as colleagues from partnering institutions around the country.

Three interconnected internal documents provided critical guidance to the development of the strategies herein: the Botanic Garden of Smith College’s Collections Policy, 2019-2024 Strategic Plan, and the Botanic Garden’s newly revised mission statement.

Guiding Institutional Documents

**BOTANIC GARDEN OF SMITH COLLEGE COLLECTIONS POLICY**
The Collections Policy established collection priorities in relation to key stakeholders, available resources, and strategic priorities. The policy defines “General Collections” with widespread appeal and utilitarianism in the landscape, and “Specialized Collections” that aim to provide deep value for specific stakeholder groups (e.g., educators, educational/research support, heritage preservation, conservation). This policy also requires us to seek a healthy relationship with the natural systems that our collections occur in and to minimize potential harm to those systems.

**125 YEARS IN THE MAKING: 2019-2024 STRATEGIC PLAN FOR THE BOTANIC GARDEN OF SMITH COLLEGE**
The strategic plan defines the Botanic Garden’s most important priorities and creates a roadmap of action for reaching these goals. Among these priorities is the stated need for developing this Collections Management Plan in a way that “...aligns plant collections with their purpose as a resource for education, research, and conservation” (Action Item 1.3.1). The desire to embrace a more holistic approach of building active collections meant considering many other strategic priorities and action items from the strategic plan.

**MISSION STATEMENT**
The Botanic Garden of Smith College’s mission statement was updated in 2020 to make transparent the Garden’s growing focus on exploring the many facets of the botanical world in ways that enhance environmental and social justice. The Collection Management Plan has been designed to advance all five of the key actions enumerated in the mission statement (see page 2).
Action items from 125 Years in the Making: 2019–2024 Strategic Plan for the Botanic Garden of Smith College that informed this plan include:

- 1.2.2. Adopt bioproductive landscape practices that reflect the college’s sustainability priorities
- 1.2.4. Bring environmental, cultural, and social issues to the forefront of learning with a new Capen Garden design
- 1.4.1. Engage students in regional efforts to safeguard threatened species through seed collection and collaboration with Native Plant Trust’s (formerly known as New England Wild Flower Society) seed bank
- 1.4.2 Expand on campus research opportunities for students through partnerships with faculty researchers and the Center for the Environment, Ecological Design, and Sustainability
- 1.4.4 Put the campus into service as a repository for native plant species that are threatened with extinction
- 2.2.1 Collaborate with Unity organizations, the Office of Multicultural Affairs, and other cultural identity groups on outreach to ensure Botanic Garden experiences are relevant and affirming to students of color
Guiding External Documents

These institutional documents have, in turn, taken cues about college priorities, values, and critical needs from other institutional plans, chiefly the college strategic plan (Lives of Distinction and Purpose: A Plan for Smith College), The Report on the Study Group on Climate Change, the 2020 Smith College Landscape Master Plan, and student scholarly work that has emerged over the past few years. Considering the broader climate of learner and educator desires, needs, and interests at Smith College means this Collections Management Plan is firmly anchored in the academic experience of today while honoring Smith College’s rich history.

The Collection Management plan is also informed by two of the most up-to-date global perspectives on the state of plant biodiversity: the Global Strategy for Plant Conservation (GSPC) and the North American Botanic Garden Strategy for Plant Conservation. Together, these two documents provide guidance on the critical role that botanic gardens must serve in the effort to conserve the systems that all life depends on and ensure equitable use of botanical resources.

GLOBAL STRATEGY FOR PLANT CONSERVATION

Adopted by the United Nations’ Convention on Biological Diversity in 2002, the GSPC reflects the strong consensus among the international scientific community that the escalating rate of biodiversity loss is one of the most critical threats to environmental and social justice as well as to the livability of planet Earth. The strategy challenges the world to invest in meeting 16 targets for documentation, conservation, sustainable and equitable land use, and education centered around the world’s botanical diversity.

NORTH AMERICAN BOTANIC GARDEN STRATEGY FOR PLANT CONSERVATION

In recognition of the key role that the international botanic garden community must play in achieving the targets of the GSPC, Botanic Gardens Conservation International led an effort to unite conservation practitioners in North America around a common set of goals. In this document, 64 specific action items for North American botanic gardens have been nested within the objectives and associated targets of the GSPC.

Excerpt from the North American Botanic Garden Strategy for Plant Conservation

Botanic gardens can support the North American Strategy in many ways, including:

- Help document local, regional, and national floras
- Assess threats and levels of risk to species and populations
- Conduct science-based ecological restoration
- Engage in proper land use and support protected areas and wilderness
- Build and maintain documented plant and seed collections as ex situ repositories
- Develop strategies to address food systems and security, cultural practices, and crop diversity
- Promote awareness, adaptation, and mitigation principles regarding climate change and invasive species
- Adopt sustainable practices, preserve ecosystem services, and promote cultural biodiversity
- Help conserve essential symbionts such as fungi and Pollinators
- Create educational programs for professionals and the public
- Craft messages to raise awareness about human impacts on plant diversity
Assessing Current Collections and Opportunities

A thorough assessment of strengths, weaknesses, and opportunities was made for our collections, plant care practices, and operations. This assessment used the guiding frameworks above to evaluate both the current and potential value of existing collections and work as a resource for education, research, and conservation. The following opportunities for development were revealed:

1. Improving the value and relevance of collections to teachers, learners, and researchers by ensuring that curatorial decisions best serve departmental mission and policy.

2. Engaging learners in active conservation projects to demonstrate how botanic gardens are conserving and restoring plant biodiversity, practicing ethical environmental stewardship, and promoting equity. In doing so, illuminate 21st century career paths for students related to public horticulture.

3. Improving the visibility of connections between living plant collections, ex situ conservation research, in situ plant conservation efforts, botanic garden operations, and the importance of collaboration among members of the international botanic garden community.

4. Strengthening Specialized Collections (as enumerated in the Collections Policy) with an emphasis on the Curriculum, Research, Endangered Species, and Germplasm Collections.

5. Critiquing curatorial and collection management approaches in order to identify and alter those that are expressions of colonialist and racist legacies. In instances where these legacies cannot be avoided, make them apparent by providing interpretation and critical context.

6. Prioritizing engagement with students and stakeholders from underserved communities in service of the Botanic Garden’s mission, the GSCP’s objective of equitable use of the world’s biodiversity, and ongoing efforts to prepare diverse future leaders to lead botanic garden decision making.

7. Aligning curatorial decisions, operations, and plant care practices with the sustainability goals enumerated in the college’s Report on the Study Group on Climate Change and the Sustainable Office program.

8. Use the North American Botanic Garden Strategy for Plant Conservation as a framework for assessment, guidance, benchmarking, and communicating the purpose and context of our conservation work.
Collection Plan: Transforming Curation, Plant Care, and Operations

When we say that the purpose of our collections is to support education, conservation, and research, we are saying that curation must build access to stories about the condition of living plant communities, their ecological impact and history, and our reliance on them as humans. With curation strategies, interpretation, plant care methods, and supporting operations aligned to reflect the Botanic Garden’s stated values and priorities, we will be best positioned to achieve that purpose. We will reach more diverse audiences, and advance research and scholarship in a wide range of disciplines. By doing so, the Botanic Garden of Smith College will be able to provide meaningful engagement opportunities to a new generation of leaders who will bring desperately needed new perspectives to critical challenges. These fundamental aspects of our work must be tangibly connected to each other and all reflect our commitment to the college’s priorities and values.
Putting Collections to Work For Regional Plant Conservation

By occupying the intersection of horticulture, living space, plant science, and education, the Botanic Garden of Smith College is ideally situated to champion the cause of addressing the biodiversity loss crisis. We must seek synergistic relationships within our professional community to maximize the impact of our collections, research, and teaching. We are also obligated to give Smith students meaningful access to a wide array of careers that focus on conservation and environmental justice within public horticulture – a community that desperately needs the diverse perspectives, creativity and drive that these students can provide.

Providing hands-on opportunities to participate in conservation work means going beyond symbolic stewardship of rare species. It requires real commitments of time, space, and capital. When we do this well, a student will be able to see meaningful connections between an environmental challenge, a globally recognized framework to address it, a Smith project that fits within that framework, and their own academic journey.

**PRIORITY 1 ACTION ITEMS**

1.1 Elevate the capacity and resilience of local habitat restoration projects by establishing accessioned, on-campus founder plots in collaboration with Native Plant Trust and the Norcross Wildlife Sanctuary

The aim of this project will be to use our collections, operations, and resources to generate an easily accessible supply of seed that contains diverse, locally adapted germplasm for local habitat restoration projects. We will grow a curated selection of native, herbaceous taxa in mono-culture beds on campus. The seed propagules for these plantings will be wild sourced, local, and represent the broadest possible range of phenotypic variance. The resulting seed harvests from these plantings will be banked with Native Plant Trust and allocated for habitat restoration with the purpose of counteracting biodiversity loss and making habitat restoration plantings more resilient and adaptable. Students can be involved in all aspects of this work and classes can be recruited to harvest and clean seed. Interns will be engaged in procuring seeds, propagating plants, managing beds, and harvesting and cleaning seeds. Our hope is that this program can be scaled up to have more participation from regional colleges and universities.

1.2 Contribute to local, in situ rare plant conservation efforts through participation in Native Plant Trust’s Plant Conservation Volunteer program

Conservation action, legislation, resource allocation, and collections building are all rooted in assessments of in situ conditions. Plant Conservation Volunteers survey rare plants in the area and collect seed and fungal symbionts for seedbanking, habitat restoration, and research. This is a first-of-its-kind program that is being emulated nationally for its efficient and effective collaboration, engagement, and data collection. Exposure to this work and information will inform curatorial decisions and connect our staff and students to the work of one of the nation’s most powerful and effective native plant conservation organizations. The project does not explicitly involve collections building, but the work will provide context and meaning for the new direction we are taking that should resonate with our students and other audiences as well as demonstrate a true commitment to conservation work. This work will also inform conservation collection building priorities.
1.3 Support the creation of a living campus genebank by reorienting onsite propagation to native woody species of known provenance

Identify 5 woody plant species that are native to the local ecoregion with high landscape value. These will be propagated from diverse, locally adapted, wild collected germplasm in sufficient quantity to presume robust allele representation from the populations they come from. The goal will be to ensure predictable access to such specimens for future campus plantings. These accessions will provide greater capacity to support the study of ecology and phenology, as well as celebrate the value of diversity within native plant species. Their value will also increase dramatically should any of these taxa face an existential threat such as native ashes (Fraxinus ssp.) have seen with the introduction of emerald ash borer. This project will also address the potential problem of inundating the local pollen bank with the clonal germplasm that is prevalent in commercial horticulture. As part of this effort, we will reach out to local conservation partners, such as Norcross Wildlife Sanctuary, to explore the potential to share the workload of propagation and germplasm collection as well as nursery stock.

1.4 Partner with other botanic gardens to establish conservation-focused metacollections

Metacollections – or holdings of a given taxon that are shared by multiple institutions, and curated as a single collection – are an emerging conservation tool for botanic gardens. By pooling resources across several institutions (and often from different climate zones) genomic diversity can be safeguarded and documented for taxa that are not good candidates for traditional seedbanking and ensure adequate redundancy to guard against accidental loss.

The Botanic Garden of Smith College is an ideal institution for participation in such a program given our mission, longevity, and assets. We will begin by determining which institutions are coordinating national or regional metacollections, assessing which projects are best fits for Smith College, and finally, we will identify campus locations for long-term stewardship of living specimens. This work shall begin with, but not be limited to the BGCI’s Global Conservation Consortium. Collections must be situated to ensure long term survival, however selected specimens should be placed prominently on campus with adequate interpreted signage to convey the significance of their story.

1.5 Provide career building conservation experience for Smith students through a year-round internship program

Through PCV work, founder plot building/management, meta-collection building/management, and elevating the intraspecific diversity of native plant collections, students will become well versed in the key ways that modern botanic gardens are aiming to address biodiversity loss. This program will provide rare and valuable experience to students aiming to pursue careers in public gardens and/or conservation.

1.6 Communicate the impact of our conservation efforts through an annual assessment

Conservation action and collection building will be assessed using the North America Botanic Garden Strategy for Plant Conservation and the Global Strategy for Plant Conservation as frameworks for benchmarking and communicating both progress and impact.
PRIORITY 2

Address Legacies of Colonialism and Racism in Curation and Interpretation

Our position within a leading liberal arts college on the ancestral land of the Nonotuck People leaves us both the obligation and the opportunity to lead at a time when botanic gardens around the globe are critiquing and counteracting racist and colonialist legacies. Our capacity to enact our mission statement will be determined by our success in creating spaces where all learners feel equally empowered to contribute, to question, and to enjoy the value of our resources. This work is new to us and to most in our field. We must familiarize, honor, and give voice to the stories of marginalized people and communities as well as actively work to unlearn patterns of thinking that prioritize one culture over others. We can not and should not do this work without the communities we strive to serve. We acknowledge that this work will reveal further urgent projects and action that will deserve the same urgency and attention as the ones named here.

PRIORITY 2 ACTION ITEMS

2.1 Identify salient priorities for addressing racist/colonialist legacies by commissioning a review of our curatorial practices

Bring in external expertise to guide an assessment of plant curation philosophies and priorities, interpretation, outreach strategies, and project building with respect to racist and colonialist legacies.

2.2 Review plant records and signage for scientific names, common names, and accompanying data that is racist, bigoted, and/or white-centric

While there is no single resource to guide this effort, we will engage with our peers in the public garden community as we collectively seek to remove offensive, traumatic, and harmful terminology and ideas from our learning spaces. We shall also develop interpretation strategies that acknowledge and counteract the centering of Euro-American people, language, ideas, history, and culture in the scientific naming process itself - redacting, contextualizing, updating terminology.
“I applaud the Botanic Garden’s commitment to ‘critiquing and counteracting racist and colonialist legacies’ in their spaces, collection, and programming. I deeply appreciate the acknowledgment that while we have not always done this work well, we can cultivate a growth mindset for racial justice. Through genuine inquiry, learning, and action, we can do better and we will.”

Floyd Cheung, Vice President for Equity and Inclusion
Strengthening Specialized Collections

The Botanic Garden of Smith College’s living plant collections are divided broadly into two categories: General Collections and Specialized Collections. Plants in the General Collections are primarily of value for populating the landscape (Display Collection) and contributing to a collection that overall showcases the diversity of form, function, and taxonomy of the plant kingdom (Education Collection). Specialized Collections may incidentally serve these purposes, but the individual specimens are less interchangeable and have been accessioned for their specific use in ongoing research (Research Collection) and conservation (Germplasm Collection), or because they assist with the teaching of specific topics (Curriculum Collection, Economic Botany Collection, Heritage Collection, and Endangered Species Collection). A thorough assessment of the current and potential value of our collections was made which reveal both strengths and potential areas for growth.

The value of the Germplasm Collection collection will be optimized by connecting accessions to broader conservation efforts. Current accessions are limited and risk the perception of tokenism as they are not connected to a comprehensive conservation effort for their species or to biodiversity preservation in general. The Curriculum Collection is not currently serving natural partners in Biological Sciences and Landscape Studies. Rigorous outreach may reveal other partners as well.

We have an opportunity to build partnerships with the Research Collection both within the Smith community and at the regional and national level. Doing so will give students access to the process of using plant collections for scientific study and the stories that inspire research and botanical careers. We also have the opportunity to better leverage the storytelling capacity of the Endangered Species Collection through signage, interpretation and thoughtful curation.

Areas of long-standing strength are the Display, Education, Economic Botany and Heritage Collections. Further development here will focus on interpretation and broadening the scope of their storytelling capacity.
PRIORITY 3 ACTION ITEMS

3.1 Curriculum Collection: Broden curricular engagement with collections through targeted assessment of instructor needs

Identify Smith faculty partners whose teaching may benefit the use of our outdoor collections by means of electronic survey. Contact those potential partners yearly to assess their needs. Contact partners who are connected to the Curriculum Collection more often as needed.

3.2 Germplasm Collection: Fortify and sustain rare native plant populations by identifying high impact propagation and collections building projects that will complement the work of other regional partners.

Among others, Native Plant Trust and Norcross Wildlife Sanctuary are actively seeking partnerships to identify and propagate locally native flora that will benefit most from ex situ collections.

3.3 Research Collection: Highlight the value of our collections to real-world problem solving by identifying partners for building Research Collection

Declare our support to natural partners in the Smith Biological Sciences department, Native Plant Trust, and other parties who are conducting research that is well aligned with our conservation and social/environmental justice goals. Arrange appropriate, regular meeting schedules once partners have been identified.

3.4 Endangered Species Collection: Improve visibility of endangered plant species by developing interpretive signage

In addition to highlighting the plants themselves, this effort will aim to communicate the myriad threats facing threatened species in the wild and the role botanic gardens and arboreta are playing in combating biodiversity loss.

3.5 Endangered Species Collection: Properly prioritize our collections targets in the Endangered Species Collection by drafting a desiderata

This list will be informed by the outcome of work in Action Item 3.4. We will seek and prioritize wild collected germplasm with known provenance data as well as specimens that are connected to conservation efforts that we and our partners are actively involved in.

“The Botanic Garden of Smith College living collections are an important asset for my teaching and research about plant-insect interactions. The curricular collection and research collection in the systematics garden and surrounding gardens are an invaluable teaching resource as they allow my students to perform hands-on experiments into pollinator behavior and ecology including studying the foraging preferences of bees. Additionally, the variety of plants and landscapes across campus provide an ideal setting to study the effects of urbanization on insect communities and behavior.”

Mariana Abarca, Assistant Professor of Biological Sciences
Utilizing Ecologically Responsible Plant Care

We acknowledge that our plant care practices will speak loudly regarding our commitment to a sustainable environment. Our treatment of the land that Smith stands on and the natural systems that interact with it must harmonize with our conservation and sustainability priorities. Our collections and associated work aim to honor, understand, and support the world’s biodiversity. Our daily treatment of those collections must also reflect that ethos. To achieve this harmony, we will consider the impact of all our horticultural practices and ensure that our staff are not only familiar with the latest guidance on sustainable horticulture, but actively contributing to the learning process within our professional community.

**PRIORITY 4 ACTION ITEMS**

**4.1 Increase capacity to build sustainable landscapes through staff education**

Support the professional education of staff aimed at low input, permaculture design and horticultural practices.

**4.2 Minimize reliance on biocides, synthetic fertilizer, and water inputs by matching plant needs with site conditions**

This thinking will be incorporated into future designs as well as assessments of existing plantings. If botanic garden plants are failing due to site incompatibility or pest/pathogen susceptibility, alternative plantings should be sought over high-input treatments.

**4.3 Address soil compaction through enforcement of our Tree Protection Plan**

Use both prophylactic and remedial measures (such as use of an air spade), to optimize soil structure for plants in our collections.

**4.4 Formalize strategy for chemical use reduction through the development of an Integrated Pest Management Plan**

The goal of this plan will be to describe the framework of priorities and best practices to be used by gardeners and arborists to guide decision making that pertains to preventing harm from plant pests and pathogens. The plan will cover plant selection, pest/pathogen detection, treatment thresholds, and treatment selection. Emphasis will be on reducing the need for remedial action and minimizing harm to non-target organisms when such action is necessary.
4.5 Track and review chemical applications and efficacy annually with the goal of reducing overall usage
Report will be produced by the Landscape Curator and shared with the Director of the Botanic Garden.

4.6 Optimize sustainable landscaping practices by testing and assessing new organic, biological, and “low environmental impact” means of controlling pests, diseases, and weeds
Trial new products and practices that show promise of lessening harmful impacts of our operations. Engage with peers in the college/university landscaping community to share and promote best practices.

4.7 Promote sustainable landscape practices by informing our community of our commitment to a healthy environment
Communicate decisions to use ecologically friendly and non-toxic chemicals to the community through signage, botanic garden publications, and through direct communication and curriculum support.

4.8 Reduce the environmental impact of invasive species in Botanic Garden managed landscapes and in our community through detection, monitoring and removal
Promote the ecological restoration of degraded and invaded naturalized landscapes with native plantings and landscape interventions.

4.9 Explore the potential to amplify our ecological impact of our collections building and operations by assessing Smith-owned riparian land along the Mill River
The assessment will encompass, but not be limited to:
   a. Invasive Species management
   b. Habitat Restoration
   c. Supporting Research and Scholarship
   d. Hosting collections
   e. Identifying and convening appropriate partners

“Piloting the conservation internship has been a physical, actionable way of engaging with the knowledge I’ve gathered while at Smith. We learn so much about the disastrous state of the world and the direction it’s headed in; this internship is my protest, my tangible recourse for plants under threat. I am a part of pushing Smith towards a brighter future of environmental stewardship. I could not be more proud that my path through a liberal arts education has been able to bring me to this place where change for the better is not only the right choice, but the achievable one.”

McKenzie Swart AC ’21 Biological Sciences major, Landscape Studies minor
“Why we build collections, who we build them for, how they are presented to those audiences, and how we take care of them are all interconnected in an essential way.”

John Berryhill, Landscape Curator
Utilizing Ecologically Responsible Operations and Infrastructure Management

We will think broadly when considering the impact of our operations on the living environment. As a community, Smith College has set ambitious goals to minimize the environmental harm that can occur while providing essential services and infrastructure. Finding sustainable solutions will take creativity, dedication, and comprehensive thinking. We will invite the input of our students, professional colleagues, and broader community as we seek to exemplify best practices for our peers. A sincere commitment will be made to align all aspects of our operations with the college’s sustainability goals and our work to support the health of the natural communities that our collections come from.

PRIORITY 5 ACTION ITEMS

5.1 Reduce carbon emissions in operations by replacing gas-powered equipment & vehicles with electric equipment & vehicles
This will reduce emissions, our carbon footprint, and noise pollution.

5.2 Reduce Capen Greenhouse energy use through structural upgrades and cultural practices
In the process, we will invite engineering students and faculty to be part of maximizing the efficiency of this space.

5.3 Continue our commitment to enacting campus sustainability best practices by upholding our Sustainable Office Certification Standards
This certification is offered by CEEDS and aims to minimize energy and materials wasted through normal office and break space activities. The checklist of benchmarks shall be reviewed annually to ensure compliance.

5.4 Minimize water waste by installing drip irrigation, using shut off valves, and creating earthen berms where feasible to reduce runoff where supplemental watering is needed
Rigorous attention will be paid to circumstances where unnecessary water runoff occurs during irrigation and reasonable solutions will be embraced.

5.5 Minimize material waste produced during propagation
Eliminate single-use disposable plastic propagation materials from operations and replace them with reusable or compostable materials when possible.

5.6 Reduce carbon input by seeking/trialing alternatives to peat in the propagation process
Given that in situ peat banks sequester carbon from the atmosphere, we will continually assess the potential of renewable materials such as coir and manure in greenhouse propagation as substitutes for nonrenewables.
“Imagine a landscape in which any given plant could be an instrumental organism for a faculty member’s research, the focus of a classroom case study in art or anthropology, or part of a global consortium’s efforts to save a threatened species from extinction. Imagine a landscape populated by plants that help us understand our past, interrogate our present, and create a more equitable future. This is the high performing collection we imagine for the Botanic Garden of Smith College.”

Tim Johnson, Botanic Garden Director
“Two vital features of the residential liberal arts experience are engagement with unique collections and attentive interaction with the physical space of the campus. These features come together in the Botanic Garden’s Collection Management Plan. At Smith, campus and collections are inextricably intertwined. We value the Botanic Garden (at once collection and campus) as a dynamic field of interaction shaped by our changing understanding of histories, power relations, and priorities as they organize the built and landscaped environment, and charting the course for collection and curation practices that are an enactment of Smith’s mission and values.”

Michael Thurston, Provost and Dean of the Faculty
This policy was approved by cabinet sponsor Michael Thurston, Provost and Dean of the Faculty, on 30 March 2021