UNITED STATES BOTANIC GARDEN

Collections Management Plan and Curatorial Policy

Revised 2017
Washington, DC

Contents

Introduction

The living collection of the U.S. Botanic Garden (USBG) is the foundation of the institution. The plant collection reflects institutional history, supports programming goals, and helps shape the future of the institution. The maintenance of a healthy, well cared-for, and well-ordered plant collection, properly documented, identified, and guided by vision in its growth and development, is key to the future of the USBG and one of the measures by which the institution will be judged.

This policy manual is an important reference for all divisions of the USBG, and is intended as a companion to the USBG Business Plan. The Horticulture Division will refer to it when specifying or recommending plants for accession or deaccession and when planning future Horticulture staffing, activities, and facilities. The Operations Division may refer to this document to plan upgrades and maintenance of the USBG's facilities. Public Programs will use it to coordinate planning for programs that draw from collections. Administrators may use it to aid institutional planning, negotiate future partnerships, develop staff, justify budget requests, and phase capital projects. Overall, this document guides how managerial decisions among all divisions are related to the management and care of the living collection.

The Collections Management Plan and Curatorial Policy is under continuous review by the Collections Management Committee. This version of the document has been approved by the Executive Director and supersedes all previous editions.

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Executive Director, United States Botanic Garden

Mission

The United States Botanic Garden (USBG) is an institution dedicated to demonstrating the aesthetic, cultural, economic, therapeutic and ecological importance of plants to the well-being of humankind. The USBG fosters the exchange of ideas and information relevant to national and international partnerships.

We carry out this mission by:

- promoting botanical knowledge through the cultivation of an ordered collection of plants
- presenting displays of plants, exhibits, and educational programs to the Congress and the public; and,
- fostering sustainability and plant conservation

Uniquely situated at the heart of the U. S. Government, the USBG seeks to promote the exchange of ideas and information relevant to this mission among national and international visitors and policymakers.

1. Overview of Collections

1.1. Overview.

In support of its mission, the U.S. Botanic Garden maintains an orderly, documented, labeled collection of living plants. The USBG Plant Collection includes the plants that are used to fulfill the educational, display, and conservation mission of the institution, with the exception of those foliage and crop plants that are grown for the express purpose of off-site or short-term display or educational program use (these plants are not accessioned into the collection). Ideally, for every plant in the collection a horticultural, conservation, and/or educational purpose has been designated that justifies the investment of staff and material resources necessary for its acquisition and maintenance. It is expected that as priorities, projects and institutional needs change, the composition of the plant collection will reflect that evolution.

The Collections Management Plan and Curatorial Policy recognizes that living collections require constant care and periodic maintenance to insure specimen quality and health. It also acknowledges that some plants needed for short-term display or programming are readily available in the nursery trade and may be acquired with relative ease. Therefore, collections are managed so that staff time and resources are focused on the rare, notable, significant, or specialized plants that warrant institutional investment and staff expertise. The curator maintains the plant collection in keeping with this policy by consulting with other USBG employees, current literature, and recognized authorities. These policies pertain only to the living plant collections of the USBG. The USBG does not formally collect or curate other organisms or objects in fulfillment of its mission.

The policies and management of the USBG plant collection are influenced by participation and collaboration, either informally or formally, with numerous professional societies and protocols, including: American Public Garden Association, American Association of Museums, U.S. Fish and Wildlife Service (CITES), American Horticultural Society, American Orchid Society, American Botanical Council, Botanic Gardens Conservation International (BGCI), Botanical Society of America, as well as other federal, state, and local organizations.

1.2. Scope of Collections.

In general, collections maintained by the USBG fall within two broad categories:

- Specialized collections that are slated for continued diversification in both taxonomic diversity and conservation value, or as an educational resource;
- General collections that are managed for outstanding horticultural merit, support of exhibits, display, and/or programs, and whose continued growth is focused on specimen quality, or exhibition value, but not necessarily on taxonomic expansion.

1.3. Specialized Collections.

Specialized collections include taxonomically or thematically focused groups of specimens. The following list is subject to change in future versions of this document if USBG priorities or projects merit its updating.

1.3.1. Orchidaceae. The USBG maintains, as its largest taxonomic grouping, various taxa in the family Orchidaceae (Orchid Collection). Historically, the collection developed as a display collection of cultivated orchids, but emphasis began to shift toward species conservation in the 1990s. Acquisition of species continues for the purposes of conservation, education, and display. Orchid cultivars of significant horticultural and aesthetic impact are maintained or acquired to support display. The collection is primarily displayed in the Orchid and The Tropics houses of the Conservatory, and in the annual orchid exhibit held in partnership with Smithsonian Gardens.

The USBG collaborates with the Smithsonian Institution in support of the North American Orchid Conservation Center (NAOCC). The goal of this collaboration, with the assistance of other partnering institutions, is the conservation, preservation, and public education about the orchid species native to the United States and Canada.

1.3.2. Medicinal and Economic Plants. The USBG maintains a collection of plants with known medicinal or other economic or societally important properties. These plants are used in exhibits and programs to educate the public about the therapeutic and ethnobotanical importance of plants. The collection supports exhibition in the Medicinal Plants and Garden Court houses of the Conservatory. In addition, the USBG maintains the collection for conservation purposes and to support research undertaken by partnering institutions.

This is a diverse collection with many complex considerations for determining which plants are included. Plants defined as medicinal are either those used historically or as the original source for prescription, over-the-counter, or herbal remedies. Plants may be maintained in the collection if:

- published in authoritative sources with the bioactive compound identified;
- identified through primary or secondary literature as having ethnobotanical importance;
- or are identified by current researchers or primary literature as having potential for clinical or therapeutic effectiveness.

1.3.3. Native Plants of North America. This collection includes plants native to specified regions of the U.S., Canada, and Mexico that are planted in outdoor groupings or areas that are most often identified as being representative of a certain geographic region and/or ecosystem. Plants native to the U.S. Mid-Atlantic from New Jersey to North Carolina are featured in the National Garden, especially in the Regional Garden. Plants native to the Southeast and Southwestern U.S. are displayed in Southern Exposure and in the perimeter of the National Garden. Plants native to eastern North America are featured in Bartholdi Park.

1.3.4. Plants of Historical Significance or Institutional Importance. This collection includes presumed original plants and their descendants from the Wilkes expeditions, commemorative gifts by foreign governments, and descendants of plants of American historical significance. Maintaining these collections as a priority is essential to remaining connected to, and interpreting for the public, the USBG's rich history.

1.3.5. Rare and Endangered Species.
This collection includes plants recognized as threatened, rare, or endangered under the Endangered Species Act, by IUCN and/or Nature Serve, as well as some of the plants received through participation in the CITES program as a U.S. Fish and Wildlife designated Plant Rescue Center. This collection helps conserve species by maintaining their germplasm in cultivation, sharing the collections with other gardens when appropriate and legally allowed, and educating the public about the diversity, plight, and importance of rare and endangered plants. This collection is currently primarily displayed in the Rare and Endangered house of the Conservatory, but has a presence throughout the USBG in indoor and outdoor displays.

1.3.6. Plants of the Mediterranean Climate Zones. This collection includes plants that are native to, or commonly cultivated in Mediterranean climate zones around the world. The collection is primarily displayed in the Mediterranean house of the Conservatory, but also has a presence elsewhere in the Conservatory and in outdoor gardens.

1.3.7. Native Hawaiian Plants. This collection features plants that are native to the Hawaiian Islands, with a focus on endemic species. The Hawaiian flora is one of the most threatened floras in the world and highlighting it offers opportunities to participate in the conservation of native U.S. plants and to educate the public about island biogeography, endemism, conservation, and tropical plant diversity. This collection is primarily displayed in the Hawaii house of the Conservatory.

1.3.8. Plants Adapted to Arid Environments (Desert Collection). This collection features plants that have evolved in mostly low to mid elevation, warm, arid environments. Major components of the collection include Cactaceae and Euphorbiaceae. It is primarily displayed in the World Deserts house of the Conservatory, but also has a presence in the Rare and Endangered house and Southern Exposure.

1.3.9. *Rosa*. This collection is featured in the Rose Garden within the National Garden due to the rose being designated as the National Floral Emblem. Roses are evaluated annually by the gardener, Plant Health Care Specialist, Gardens and Grounds Supervisor, and Plant Curator for performance in the USBG's climate and response to minimal or no chemical treatment.

1.3.10. Carnivorous Plants. This collection includes tropical and temperate carnivorous plants and is maintained due to their charismatic nature and interest to the public. It is displayed primarily in Southern Exposure, Plant Adaptations, the Regional Garden, and Bartholdi Park.

1.4. General Collections.

Including:

- Araceae. This diverse family collection includes some of our most charismatic collections, such as the corpse flower (*Amorphophallus titanum*) and Swiss cheese plant (*Monstera deliciosa*), as well as an abundance of featured plants in The Tropics.
    - Landscape Plants. Plants appearing in permanent landscape plantings in the Conservatory, National Garden, and Bartholdi Park outdoor gardens are included in the accessioned collection due to their prominence and longevity.
- Horticultural and Educational Stock Plants. This collection includes plants needed to support reoccurring exhibits or educational programming, plants routinely used for display accent, and horticultural propagation stock plants.

1.5. Acquisition.

Plants may be acquired for the collection with approval from the Plant Curator. Plants may be acquired by purchase, through donation, or exchange with other institutions or by field collection in accordance with all applicable laws. All acquired plants must be inspected by the Plant Health Care Specialist and nomenclature verified by the Botanist.

1.5.1. Purchased Plants. Includes plants that are commercially sourced adhering to federal procurement laws with advance approval of the Plant Curator.

1.5.2. Private Donation. Plants acquired through donation from private individuals with approval from the Plant Curator. Information about how the plant was obtained must be gathered in advance of acceptance of the donation.

1.5.3. Institutional Donation. Includes plants obtained from other government agencies through transfer agreements, and plants donated by commercial entities, universities, and non-profit organizations.

1.5.4. Wild Collected Plants. Plants collected from wild populations following all applicable collection and transport laws.

1.6. Loans.

Currently the USBG loans or borrows plants from the Smithsonian Gardens and the Smithsonian Institution National Museum of Natural History (NMNH) Department of Botany. The practice is treated as an in-house transfer (similar to moving plants between the Production Facility and the Conservatory). They are tracked on a USBG Plant Change of Status Form (Appendix A). Based on long standing practice and partnership with the Smithsonian Institution, a statement of horticultural conditions governing the loan of the plants is not generated. Other institutions' requests for plants are treated as formal loan requests and must be accompanied by a completed Plant Loan and Distribution Agreement (Appendix B) approved by the Plant Curator.

2. Governance of Collections

2.1. The Collections Management Committee.

The purpose of the Collections Management Committee is to review policy and management procedures concerning plant collections. Additionally, the Collections Management Committee facilities planning for possible impacts on the collection due to projects, exhibits, and or institutional priority changes. The principal outcome of the Committee's effort is revision of the Collections Management Plan and Curatorial Policy.

The Collections Management Committee is led by the Botanist and includes the Horticulture Manager, Plant Curator, Science and Public Programs Manager, Conservation Horticulturist, Plant Recorder, Collections Section Supervisor, and Gardens and Grounds Section Supervisor. The committee meets quarterly, or more often as needed.

2.2. Care and Conservation of Plant Collections.

The Horticulture staff is charged with primary responsibility for care and maintenance of collections under the direction of the Horticulture Manager and leadership of the Plant Curator. Members of the Horticulture staff are assigned principal care responsibilities for sections of the collection, both in the production greenhouses and in the public display areas. The goal is to maintain healthy plants of the highest quality. In addition to specimen care (e.g., watering, pruning, repotting, and propagation), gardeners are responsible for maintaining, transferring, or requesting new accession labels for plants, as needed, in order to insure validity of records. Gardeners also make or recommend adjustments of environmental parameters or microclimate conditions as necessary to promote health of the plants. In times of staff reduction or resource shortfalls, priority of care is allocated to plants documented to be of wild provenance, plants of historical significance to the USBG, plants of conservation concern, and taxa difficult to obtain through the commercial trade. In emergency situations, the USBG Horticulture Asset Recovery and Protection (HARP) checklist (Appendix C) should be consulted in order to best rapidly manage the collection. Evaluations of holdings are periodically undertaken or directed by the Plant Curator, Plant Health Care Specialist, or Horticulture Manager to ensure plant health and adherence to this policy.

2.2.1. Propagation. Horticulture staff may propagate specimens in the collection vegetatively or from seed or spore, under the following circumstances:

- Propagation must be approved by the Plant Curator for a stated need or project.
- Propagation may be recommended or deemed necessary to maintain the germ line of the specimen.
- Propagation also follows acquisition of new seed material.

Requests for propagation must be approved by the Plant Curator in advance. All propagules must be labeled with temporary tags designating the number of the original accession. Seed propagules are assigned a number indicating the provenance of the seed lot. Individual specimen accession numbers for seedlings are assigned upon determination and selection of the individuals from the cohort. Propagation may result in multiple

individuals that will be planted out together in one population, in which case they may be given a single accession number for the lot.

2.2.2. Inventory. Gardeners are accountable for the plants assigned to their care. At the direction of the Plant Curator or a supervisor, gardeners may be required to conduct periodic inventories of sections of the collection. A complete inventory of every collection specified in sections 1.3 and 1.4, and of conservatory houses and exterior gardens, shall be completed every two years. Spot checks are periodically conducted by the Plant Curator, Botanist, and Plant Recorder. Inventory records are maintained by the Botanist and Plant Recorder in the database.

2.2.3. Safeguarding. The Horticulture staff, under the guidance of the Horticulture Manager and in collaboration with the Operations Division, is responsible for monitoring environmental conditions in order to maintain optimal growing conditions. The USBG is subject to occasional natural disasters, including tropical storms, winter storms, and floods. The Horticulture staff is responsible for anticipating such conditions and responding with adequate safeguards. An Emergency Team for the Conservatory, grounds, and Production Facility is designated annually for year-round coverage and is activated when an emergency is declared for the AOC, or its activation is deemed necessary by the USBG Executive Director. Under emergency conditions, the AOC's and USBG's Emergency Teams are activated to determine emergency protective measures, and if conditions warrant, the evacuation of collections. The USBG Horticulture Asset Recovery and Protection (HARP, Appendix C) checklist guides the protection, preservation, and recovery of horticultural assets in the event of an emergency.

2.2.4. Invasive Species. Invasive species are not native to the ecosystem and/or geographic area under consideration, spread vigorously, and cause, or are likely to cause harm to the environment, economy, wildlife, and/or human health. The USBG takes an active role in managing the plant collection with concern for avoiding invasive or potentially invasive plants. Accordingly, the USBG does not grow plants listed as invasive in the mid-Atlantic region by Virginia, Maryland, or the District of Columbia, unless deemed programmatically necessary and grown in such a way as to prevent them from escaping from cultivation (i.e., grown indoors, prevented from producing seed, and/or prevented from vegetatively dispersing). A working listing of invasive plants appears in Appendix D and will be maintained by the Plant Curator and Conservation Horticulturist to include plants newly identified as invasive in the region. Species considered ubiquitous in disturbed habitats that have programmatic value may be excepted from the list (e.g., *Cichorium intybus* grown as radicchio).

3. Registration and Accessioning of Collections

3.1. Definition.

The maintenance of critical information pertaining to the permanent collections is of utmost importance to the credibility and success of the institution in fulfillment of its mission. The Botanist and Plant Recorder are responsible for maintaining the database. Gardeners share in the responsibility to safeguard collections information, particularly with regard to inventory, accession tags, and maintaining labeling during specimen display, care, and transport.

3.2. Accessions.

The Plant Curator determines what plants are accessioned. The decision to accession plants is based on present and/or future institutional needs, as outlined in sections 1.2.–1.4. above, for conformance to qualitative standards, and to safeguard against introducing or harboring invasive species (as detailed in section 3.2.1.). The Plant Curator may consult the Botanist, Conservation Horticulturist, Plant Health Care Specialist, Horticulture Manager, and other internal and external experts, as needed, for their advice. The following guidelines should be used to determine which plants are selected for accessioning into the living collection.

- Preference is given to plants with known provenance. In particular, wild-collected plants and propagules from wild-collected plants are preferred.

- Plants must be of verifiable identity.

- Plants must be in good health (disease-free, infestation-free, not suffering from nutrient deficiencies). Final evaluation of plant condition will be completed by the Plant Health Care Specialist before admission to the greenhouses.

- Plants must have been legally obtained in accordance with all applicable laws regulating production, collection, importation, propagation, patent, and ownership.

- Plants are to be accessioned individually, or in groups of multiple individuals if the intent is to plant them in groupings.

- Plants must not violate the guidelines specified in section 3.2.1. for excluding invasive species from the USBG.

3.2.1. Initial Procedure for Accessioning. Information for all incoming plants designated for permanent collections must be recorded on an Accession Request Form (Appendix E) and should be accompanied by supporting documentation such as a receipt, invoice, field collection notes, or other documents provided by the vendor, collector, or donor. Upon receipt of plants, the Plant Curator reviews the Accession Request Form and/or supporting documents, the Botanist evaluates the nomenclature, and the Botanist or Plant Recorder accessions the plants.

3.2.2. Guidelines for Conserving the Integrity of the Collection. The following guidelines have been developed to aid Horticulture staff in managing the natural growth and senescence of the specimens in the living collection:

- One to three backup plants are maintained for most taxa to provide redundancy in case of specimen death or accidental damage.

- Unless justified by programmatic or conservation needs, no more than three individual individuals of a taxon are to be maintained unless received through repository or partnership agreements. Exceptions to these guidelines may be approved by the Plant Curator.

- Plants shall be grown to maintain optimal plant health, as evaluated by the Plant Health Care Specialist and the Plant Curator. Plants in the collection that do not meet these standards shall be evaluated for deaccessioning.

- The Horticulture staff is responsible for recording and submitting to Plant Records a Plant Change of Status Form (Appendix A) that documents the movement of living collections and plant material within and between the Conservatory, grounds, and Production Facility,

- The Horticulture staff is responsible for reporting plant death or other losses, and plant propagation. In the event of plant loss, the Horticulture staff must return the accession tag, display label, and Plant Change of Status Form (Appendix A) to the Botanist or Plant Recorder.

3.2.3. Labeling. Standards for all accessioned and display plants are detailed below. All collection plants must be labeled inclusive of the accession number.

- Accession Tags: The monitoring and maintenance of accession tags is the responsibility of the Horticulture Division. In the case of group plantings of individuals accessioned under one number and maintained in one location, only one accession tag is required.

- Display Labels: Plants on public display are required to be labeled so that visitors, docents, and staff can readily determine the name of the plant. This includes both collections and display plants. Horticulture employees are responsible for ensuring proper labeling. Label requests must be made at least three days in advance of display. Nomenclatural content must be approved by the Botanist

- Temporary Accession or Identification Tags: Plants that have been received for trial or to provide temporary aesthetic value will generally receive a temporary tracking label, but will not be entered into the collection and accessioned (e.g., annuals, seasonal display crops, etc.). Plants selected for retention for more than one year, or for propagation stock, may be accessioned into the collection.

3.3. Deaccessions and Individual Plant Removals.

A plant may be removed from the collection with the approval of the Plant Curator.

3.3.1. Reasons for Deaccession/Removal. Plant specimen conditions and circumstances that may result in deaccession/removal include:

- Plant exhibiting disease or decline due to factors such as incompatibility with climate, poor stock, mishandling, etc.

- Plant deemed to be redundant for mission fulfillment, or of no current or likely future use under provisions of the Collections Management Plan.

- Plant lacking affixed accession tag, temporary accession or identification tag, or display label, and that is not otherwise linkable to an accession number.

- Plant requiring excessive maintenance effort not justified by the benefits of retaining it in the collection.

- Plant that may be readily and economically obtained in the commercial trade at a lower cost than is required to maintain it in the collection.

- Plants that are being replaced with individuals of the same taxon for various purposes in keeping with the priorities of the collection.

- Species deemed invasive (see Section 3.2.1.).

3.3.2. Disposal of Plant Material. Several different legal and policy issues govern the physical removal of accessioned plants from the collection:

- Deaccessioned plants, excess natural propagules, and divisions of deaccessioned plants are the property of the U.S. Government and fall under U.S. property regulations. They may be offered to other botanic gardens, arboreta, and non-profit educational organizations, or government entities in accordance with current law and policy agreements. Excess plants not so distributed shall be composted or otherwise destroyed in keeping with applicable concerns such as spread of disease spread.

Plants are to be disposed of as listed above unless their retention has been requested and approved by the Plant Curator or Horticulture Supervisor in advance (e.g., in certain cases, plants to be deaccessioned by one Horticulture section may be needed and transferred to another). In such a case the plant retains its accession tag in the event that it is ever added back into the collection.

- Plants received under CITES Plant Rescue Center agreement are governed by CITES restrictions and remain the legal property of the U.S. Fish and Wildlife Service (USFWS). Upon a decision to remove them from the collection, plants are deaccessioned and must be returned only to the USFWS. If a CITES plant dies, notification to appropriate USFWS CITES personnel is required.

  No plants shall be offered in exchange for money or any other considerations.

3.3.3. Deaccession Records Processing. The Botanist and/or Plant Recorder must be notified of all deaccessions. All accession tags and display labels from deaccessioned specimens must be returned promptly to the Botanist and/or Plant Recorder by Horticulture staff requesting the deaccession. Accession tags are not to be transferred to another plant. Deaccessions, including transfer of material to another institution or out of Collections to another division, are to be noted along with reasons for the deaccession on a Plant Change of Status Form (Appendix A).

4. Access and Use

The U.S. Botanic Garden strives to provide public access to collections and collection information. In addition to use in public displays, interpretation, and education programs, the USBG collections are available for study by requests for research use by researchers, horticulturists, and students. Permission is granted primarily based on impact on the collections and staff time required to fulfill the request. The USBG may deny access to any plants deemed too sensitive or immature to withstand destructive sampling (e.g., of leaves, flowers, or fruits).

Requests for access to the plant collection for the purposes of photography, botanical illustration, media, or other reasons are to be submitted to the Science and Public Programs Manager or the Public Affairs and Exhibits Specialist. Requests are evaluated based on consistency with the USBG's mission, rules, and impact on the collection.

Access to non-public areas, may be granted to interested parties with prior approval. Visitors granted access to non-public areas must be accompanied by a BG employee at all times. Access is granted based upon availability of a staff sponsor and the nature of the request. Registered public programs throughout the year allow the public to access the Production Facility to view and learn about the collection not on display at the Conservatory.

Some plants in the USBG collections may be encumbered by access and benefits sharing agreements (including national and international law). These plants should be labeled as such, with a copy of any accompanying agreement attached to the accession record. All such access and benefits sharing agreements should be respected at all times.

UNITED STATES BOTANIC GARDEN

Plant Change of Status Form

Date of Action/ Change	Action: Moved(M) Dead(D) Removed(R)	Accession #	Plant Name	Quantity	Old Location	New Location	Needs Accession Tag?	Acc. Tag Attachment: Clip / Stake	Needs Display Label?

Date Submitted: _____

Submitted By: _____

Supervisor Signature: _____

APPENDIX B

Plant Loan and Distribution Agreement

UNITED STATES BOTANIC GARDEN
245 First Street SW
Washington, DC 20515

Check which applies: ☐ Loan ☐ Distribution

Date of Loan/ Distribution: _____

Return Date (if applicable): _____

Receiving Institution's Information

Organization:_____

Contact Name:_____

Address:_____

Phone:_____Email:_____

The United States Botanic Garden assumes no liability for damages or injuries resulting from receiving these plants at your facility to property or to persons through distribution or during the period of loan. Responsibility for safe transport, installation, proper care, and protection from damage is the responsibility of the recipient. Recipient agrees at the request fo the United States Botanic Garden to replace plants damaged for any reason in the case of a loan. Recipient assumes responsibility for costs of shipping and handling.

USBG Approved by: _____

USBG Checked-out by: _____

For Receiving Institution:

Picked up by:_____ Date: _____

**** Please list all plants loaned / distributed on next page ****

List all plants loaned / distributed

Accession Number	#	Name of Plant

APPENDIX C

USBG Horticulture Asset Recovery and Protection (HARP) for the Conservatory and Gardens Checklist #204a

Purpose: The Horticultural Asset Recovery and Protection (HARP) Checklist is to provide for the protection, preservation and recovery of horticultural assets of the United States Botanic Garden (USBG) in the event of a facility emergency. *The Horticulture Division must establish a system to easily identify critical specimen plant material (i.e. color on plant label, picture for inclusion in HARP plans, special specimen requirements, etc.). Critical material shall have genetic progeny distributed to botanic gardens across the country.* Components of the HARP Checklist in *Italics* are still to be completed.

SCOPE: This HARP Checklist is designed to include the Conservatory and Gardens of the USBG. It is to include all living plant material with emphasis on Wilkes historic specimens, as well as, rare and endangered plant material.

#	EVENT TASK GENERAL INFORMATION
	Emergency Personnel Duties
1	In the event of an emergency, all personnel are to follow commands of the United States Capitol Police (USCP).
2	The primary point of contact with the USCP is the Facility Manager. See figures 1 and 2 for the personnel notification flow process.
3	The Horticulture Manager, Senior Horticulture Supervisor and Operations Supervisor will be responsible for establishing initial damage assessments teams and/or response teams for both facilities and horticultural material.
4	For complete assessments regarding the impact of the incident to facility, horticulture materials, and safety of personnel and visitors, see *Exhibit Emergency Checklist* (#204) and the *Infrastructure Response and Recovery (IRR) Checklist* (#202) for additional details.
5	The *USBG Action Plan* will be used to assist in the development of tasks, goals, and objectives needed to resolve the event.
6	Staff will refer to the *USBG Conservatory Preplan* for detailed information and diagrams identifying plant protection and/or plant transfer/movement requirements.

#	EVENT TASK	COMPLETED YES/NO/NA	TIME
7	Operations personnel determine the cause for loss of heat, anticipated timeline for repair and restoration of heat to the minimum set for each house in the *USBG Conservatory Preplan*.		
8	If the ARGUS system house alarm alerts, the on-site mechanic on duty from Operations checks the steam pressure in the basement of the Conservatory. If there is an incoming steam pressure problem, contact is first made with the Capitol Power Plant (CPP) control room operator. If there is a problem that cannot be resolved quickly, then the USBG managers and supervisors are notified.		
9	Operations personnel notify the Horticulture Manager or designee in the event of a low temperature alarm in any Conservatory house and/or the heat system can't be repaired in more than four (4) hours.		
10	Operations personnel will develop an Action Plan identifying objectives and required activities to retain and/or generate heat based on the current specimens on display and the *USBG Conservatory Preplan*. Based on Action Plan identified activities, operations personnel will use the Safety Briefing Form to identify and document safety issues and actions required to resolve these issues.		
11	A specimen triage assessment will be conducted based on the current specimens on display and the *USBG Conservatory Preplan* to identify specific specimens for temporary protection and/or removal to the low houses and/or Production Facility.		
12	Initiate the Action Plan to include identified actions such as covering plants such as covering plants (e.g., larger permanently planted specimens) with insulating materials and tie-downs as specified in the *USBG Conservatory Preplan*.		
13	As required by the Action Plan, package and transport identified specimens to protected areas based on the *USBG Conservatory Preplan*.		
14	A safety evaluation for appropriate ventilation needs must be completed prior to and during the deployment of portable heaters burning hydrocarbons (e.g., propane, natural gas, kerosene, or diesel fuel). Periodic air monitoring should be conducted by safety personnel for flammable gas leaks and carbon monoxide (CO).		
15	Notify contracted vendor to provide emergency back-up portable heaters and/or fuel, as required.		

#	EVENT TASK	COMPLETED YES/NO/NA	TIME
	Loss of Power		
16	Notify the High Voltage Shop when the emergency generator is activated.		
17	Ensure that the High Voltage Shop assesses diesel tank level for emergency back-up generators and monitors operation of emergency generators, when activated.		
18	Evaluate the loss of power to determine if it causes a loss of heat, and if so, follow directions above for loss of heat.		
	Loss of Water		
19	Operations personnel will determine a cause and anticipated timeline for repair and water restoration. Appropriate decisions will be based on anticipated time for restoration; concerns begin when loss extends beyond 24 hours.		
20	Evaluate and determine alternate water source based on needs and timeline for restoration: 1. *Provide water via truck mounted portable tanks and pumps from alternate sources.* 2. Provide water via portable pumps from Conservatory water features. 3. Fill Bartholdi Fountain as temporary reservoir, up to 100,000 gallons, *requires tankers to transport to Conservatory or establishment of a connection point via utility tunnels for a temporary water line to be run from Bartholdi fountain to Conservatory via hose lines.* The fountain is drained during the winter months. 4. *Notify contracted vendor to deliver water by 5,000 gallon tanker, number of deliveries to be determined by assessment of needs.* 5. *Provide water, via WASA permit, through temporary access to adjacent fire hydrants; notify AOC Fire Marshal's Office of intended action.* 6. *Provide water from the reflecting pool.*		

FIGURE 1. ARGUS SYSTEM ALERT AT CONSERVATORY NOTIFICATION PROCESS

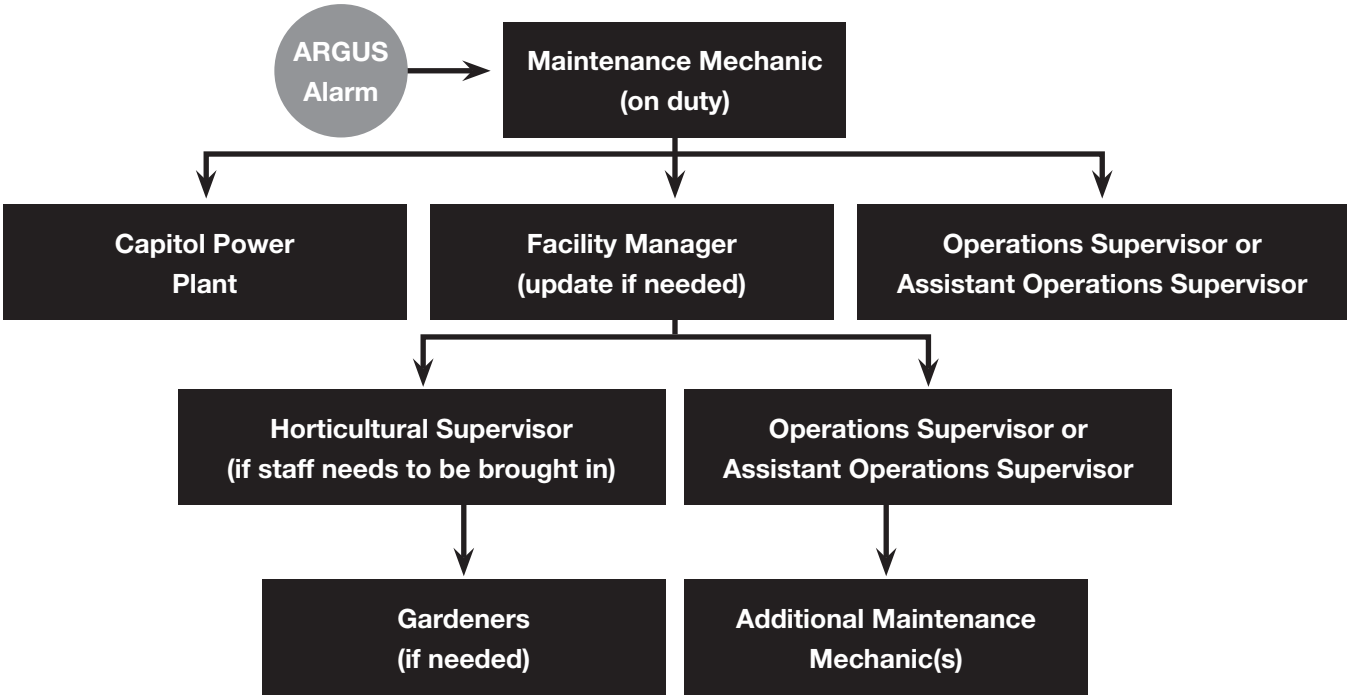
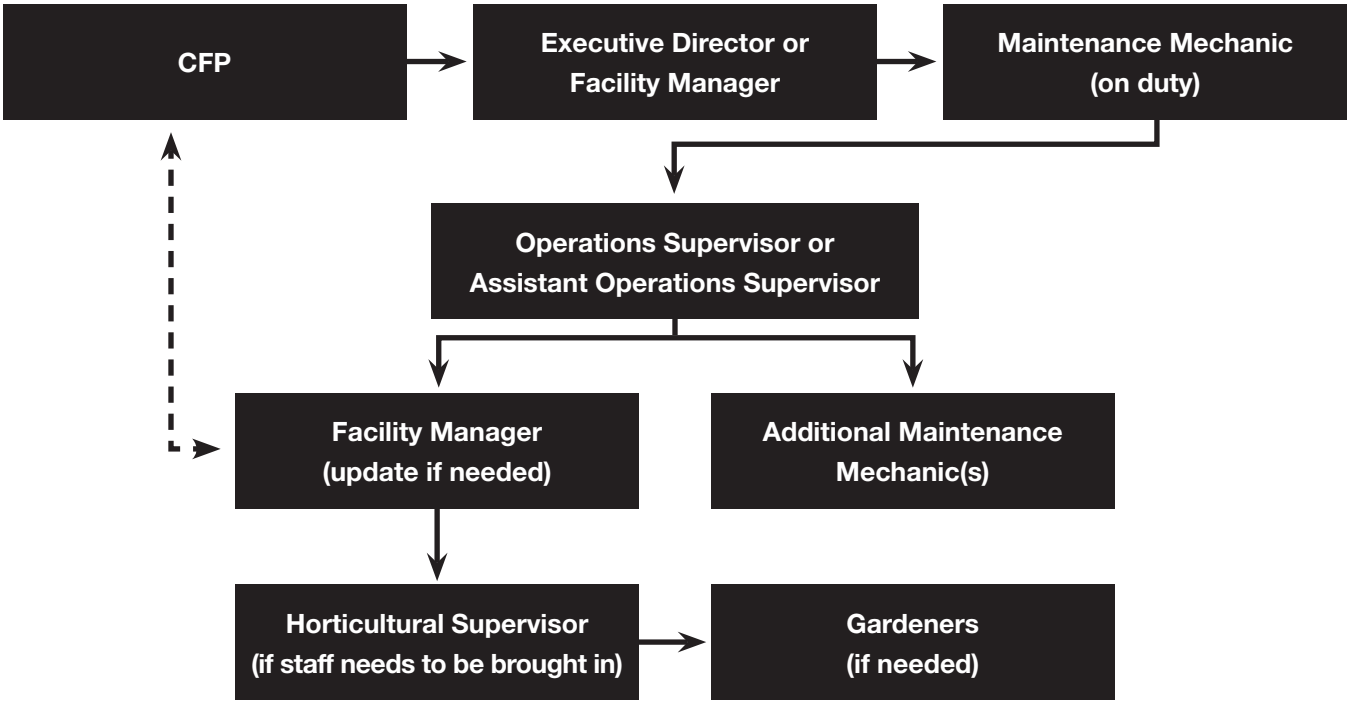


FIGURE 2. SERIOUS INCIDENT AT CPP AFFECTING CONSERVATORY NOTIFICATION PROCESS



USBG Action Plan

Event:	**Date:**
Action/Goal/Objective(s): ☐ Recall Staff ☐ Generate Heat ☐ Retain Heat ☐ Move Plants ☐ Other (Specify):	

Element		**AKA**	**Input**	
Task(s) (see footnote)		What to do What needs to be done	#1	
			#2	
			#3	
			#4	
			#5	
Location(s)		Where to do it		
Resources	People	Who does it		
	Equipment	What to use		
	Supplies	What to use		
	Funding	How do they pay		
Schedule		When to do it		
Coordination		Who approves		
		Who supports		
		Who needs to know		
		Who you report it to		
Safety (see Safety Briefing Form)		How to protect		

All tasks (objectives) should be written using **SMART**: **S**pecific (*wording precise and unambiguous*); **M**easurable (*how achievements will be measured*); **A**ction Oriented (*use an action verb to describe expected accomplishments*); **R**ealistic (*ensure outcome is achievable with given available resources*); and **T**ime Sensitive (*within specified timeframe*). For example: Perform a Tier I assessment of the Ford House Office Building within 12 hours of the event.

Safety Briefing Form

Safety Briefing should cover the following items:

- Site Description— include all potential chemical and physical hazards, weather and control/safety zones.
- Review work assignment(s)—describe actions and tasks to be accomplished.
- Review PPE requirements.
- Communication Procedures—for command and control, radio channels and cell phones, and emergency warning and evacuation signal.
- Review personnel and environment monitoring requirements.
- Review emergency escape procedures.

1. SITE DESCRIPTION:

Reported Event: _____

_____

Building/Facility/Plants Damaged / Potentially Damaged by:

☐ Fire ☐ Explosion ☐ Smoke ☐ Water ☐ Flooding ☐ High Winds ☐ Tornado ☐ Hurricane
☐ Earthquake ☐ HAZMAT Contamination ☐ Steam Rupture ☐ Loss of Heat ☐ Loss of Water

Potential Assessment Hazards: ☐ Fire ☐ Explosion ☐ Steam Expansion ☐ Confined Space
☐ Hazardous Materials ☐ Spill/Leak ☐ Asphyxiation ☐ High Heat ☐ Extreme Cold ☐ Snow & Ice
☐ Rain ☐ Slips/Trips/Falls ☐ Falling Objects ☐ Impact by Objects ☐ Electrical ☐ Sharp Objects
☐ Contact with Moving Parts ☐ Noise Above 85 dBA ☐ Work Below Grade
☐ Biologics (insects, plants, animals) ☐ Other (specify): _____

Area Affected: _____

Weather: _____

Additional Information: _____

2. WORK ASSIGNMENT(S):

_____

_____

_____

3. PERSONAL PROTECTIVE EQUIPMENT:

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work areas or tasks:

☐ Hard Hat	☐ Disposable Overgarments	☐ Air-purifying Respirator
☐ Safety Vest	☐ Gloves	☐ Air Monitoring (four-gas)
☐ Safety Shoes	☐ Flashlight	☐ Whistles with Lanyard
☐ Safety Glasses	☐ Dust Mask	☐ Eyewash Solution
☐ Other PPE (specify type& quantity):		

4. COMMUNICATION PROCEDURES:

_____

_____

_____

5. PERSONNEL AND ENVIRONMENT MONITORING REQUIREMENTS:

Cold Zone_____

_____

Hot Zone _____

_____

Decontamination _____

_____

6. EMERGENCY PROCEDURES:

_____

_____

_____

Working List of Mid-Atlantic Invasive Plant Species

This list is not intended to be comprehensive and excludes plants classified as noxious weeds by local and federal agencies, as well as other plants that are unlikely to be intentionally grown at the USBG. As nascent invasive plants are identified, they may be added to the list, thus potentially updating the list more often than the Collections Management Plan and Curatorial Policy is revised. Resources for the list are experts, organizations, current literature, and white papers, including: the Mid-Atlantic Exotic Pest Council, University of Maryland Extension: MAEDN (Mid-Atlantic Early Detection Network), *Compilation of Regional Invasive Plant Species Lists* published by the University of Maryland Extension Home & Garden Information Center, Maryland Department of Natural Resources, Virginia Department of Conservation and Recreation, the Virginia Natural Heritage Program, the Plant Conservation Alliance (PCA)'s Invasive Working Group, and the Virginia and Maryland Native Plant Societies.

Acer palmatum
Acer platanoides
Aegopodium podagraria
Akebia quinata
Albizia julibrissin
Ampelopsis brevipedunculata
Aralia elata
Berberis julianae, B. thunbergii, B. bealei
Buddleja davidii
Celastrus orbiculatus
Clematis terniflora
Dioscorea polystachya
Eichhornia crassipes
Elaeagnus angustifolia, E. pungens, E. umbellata
Euonymus alata, E. fortunei, E. kiautschovicus
Ficaria verna
Hedera helix, H. hibernica
Hemerocallis fulva
Hesperis matronalis
Hibiscus syriacus
Ilex crenata
Ipomoea coccinea, I. hederacea, I. purpurea
Iris pseudacorus
Koelreuteria paniculata
Lamiastrum galeobdolon
Ligustrum spp.
Liriope spicata
Lonicera fragrantissimum, L. japonica, L. maackii, L. morrowii, L. tartarica, L. xylosteum, L. × bella
Lysimachia nummularia
Lythrum salicaria
Miscanthus sinensis
Morus alba
Myriophyllum aquaticum
Nandina domestica
Ornithogalum nutans, O. umbellatum
Pachysandra terminalis
Paulownia tomentosa
Perilla frutescens
Pennisetum alopecuroides
Phellodendron amurense
Philadelphus coronarius
Phyllostachys aurea
Poncirus trifoliata
Populus alba
Prunus avium
Pseudosasa japonica
Pyrus calleryana
Quercus acutissima
Reynoutria japonica
Rhamnus carthartica
Rhodotypos scandens
Rosa multiflora
Rubus bifrons, R. illecebrosus, R. phoenicolasius
Salix alba, S. sepulcralis group
Styphnolobium japonicum
Trapa natans
Ulmus pumila
Urtica dioica
Viburnum dilatatum, V. plicatum, V. setigerum, V.sieboldii
Vinca major, V. minor
Vitex rotundifolia
Wisteria floribunda, W. sinensis

UNITED STATES BOTANIC GARDEN

Accession Request Form

Immediate Source

Name: _____

Address: _____

Email: _____

Telephone: _____

Secondary Source: _____

To Acknowledge: _____

Date Received: _____

Signature: _____

Date Accessioned: _____

Name of Plant	Quantity	Type of Plant: SD, PLT, CTG	Plant Size	Notes	Accession Number

UNITED STATES BOTANIC GARDEN