Descanso Gardens
Master Plan

Enhancing the Spirit of Descanso for the next generation

Final Master Plan
July 2020
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Acknowledgements

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Introduction
The Descanso Mission

“Descanso Gardens is a unique Southern California landscape distinguished by its specialized botanic collections, historical significance, and rare natural beauty. Our mission is to practice exemplary stewardship of Descanso’s distinctive character and assets; offer people an experience close to nature; and cultivate understanding of the natural world and people’s place in it through inspiration, education and example.”

– Descanso Gardens Guild
The Spirit of Descanso

Descanso Gardens is a distinctive and multifaceted landscape, at once curated and wild – bridging culture and nature as well as our past, present and future. No other Southern California landscape can provide such a deep glimpse into our cultural, environmental, and horticultural history.

This Master Plan will take the unique ingredients which make up Descanso, and consider the strategic planning and funding necessary toward realizing the future of the gardens.
Why do we need a Master Plan?

This Master Plan will become the roadmap for Descanso’s evolution over the next 15 years. It will act to guide future projects and decision making regarding the garden’s facilities, operations, and initiatives.

With goals to enhance the presence of history and the botanical collection, improve environmental resilience, and enrich the guest experience and opportunities for programming, this Master Plan addresses each part of the property and proposes an integration of the entire garden into a holistic vision.
Guiding Principles

Solve Problems
Historic gardens, water features, buildings, and aging infrastructure have combined to test the limits of Descanso’s facilities and operations. There are several critical challenges this Master Plan prioritizes and addresses.

Make it Real
Finding a balance between problem solving and visionary planning was a primary aim of the Master Plan. All the proposed projects and improvements can be made over the next 15 years.

Be Visionary
This Master Plan delivers a road map that is not only achievable, but also inspiring. There are many parallel narratives contained within the larger story of Descanso Gardens – the Master Plan seeks to celebrate these stories and curate an aspirational vision that will resonate into the future.
Plan Objectives

In line with the Descanso Mission and Strategic Plan, these essential goals have emerged for the Master Plan to best define Descanso Gardens for the next generation.

1. World-Class Botanical Collections
Preserve and enhance Descanso’s unique landscape and botanical collections.

2. Seamless Visitor Experience
Create a seamless visitor experience through improved amenities, circulation, and ADA accessibility.

3. Exemplary Environmental Stewardship
Protect and enhance Descanso’s natural assets through ecological restoration, enhanced water conservation, and habitat considerations.

4. Resilient Infrastructure
Enhance the long term resilience of Descanso by optimizing botanical relationships and reducing off-site dependency of water and energy.

5. Revealing Stories
Celebrate Descanso’s rich cultural and ecological assets through meaningful storytelling.

6. Operational Excellence
Streamline operations to enable a more efficient and productive team.
Strategies & Tactics

I. A New Circulation Framework
An overarching circulation framework will re-orient the visitor experience and serve to re-organize infrastructure, amenities and services.

II. Activating the Gardens
A combination of enhanced gardens, features and opportunities for programming, will create new experiences and lasting activation of the gardens.

III. Weaving Water and Ecology
The site water and ecology will be re-framed to intersect with the gardens and circulation in celebratory, educational and sustainable new ways.

IV. Organizing Operations
Reconsidering underutilized areas outside the garden walls will create new efficiencies in both garden operations and vehicular circulation.
Master Plan Projects
The Master Plan

The Master Plan synthesizes the contending opportunities that emerged from the Needs Assessment. The plan proposes many simple upgrades and enhancements, but also proposes several new and aspirational projects that will re-frame and re-contextualize beloved existing features such as the Lake, the Rose Garden and the Camellia Collection. In all cases, the design proposals look to amplify the assets of the garden through strategic curation, enhanced sustainability and consideration of guest experience.
Circulation Framework

Reorganizing the circulation will help adjust the hierarchy to improve orientation and better showcase key Descanso stories / experiences. The revised circulation will:

- Guide visitors through the gardens (instead of around them)
- Separate visitor experience from maintenance routes
- Organize site amenities
- Curate Descanso stories
- Strategically distribute utilities (power & water)

- **Arrival Procession**
- **Gardens Loop**
- **Woodland Walk**
- **Nature Path**
- **Service Route**
Accessibility

With new switchbacks and resurfaced existing paths, the circulation will enable accessibility to all visitor areas.

Improving Existing Conditions
- Majority of existing circulation is under 5%
- Simple resurfacing is needed to improve access
- Paths between 5% to 8% can be improved for access with resurfacing and addition of handrails and landings

New Accessible Connections
- Some areas are too steep to meet ADA, but new paths and switchbacks will connect inaccessible areas
- Elevated walkway will connect central garden to Boddy House

Legend
- Less than 5%
- 5%-8%
- Over 8%
- Dashed Line = New Path
Circulation Reorganization

The selective removal and addition of paths was done with the aim of creating impact through new alignments while allowing the intimate path network of Descanso to remain.

Enhanced Existing Conditions - 85%
- Majority of path network to remain as is or to be regraded and resurfaced to improve access

Strategic Additions - 15%
- New paths created to connect inaccessible areas
- New connections to complete main circulation routes
- New secondary paths to help internal circulation within enhanced gardens

Select Removal
- Limited removal of paths, including in the Rose Garden, Camellia Forest, and Lilac Garden
Arrival Procession

This procession ushers visitors into the property through a lush garden - a garden that you can park in.

½ mile / 10 – 30 minutes

Path Treatment
5-10’ wide; Decorative Paving
Bridges over swales

Key Experiences

- Arrival Grassland Garden
- Visitor Center
- Van de Kamp & Courtyard
- Entry Court
Arrival Grassland Garden

This re-imagining of the main parking area provides an immersive botanical experience from the moment a visitor arrives.
The above images represent ways of using landscape in parking lots to screen parking as well as to filter stormwater and provide a lush verdant pedestrian experience from car to garden entry.
Arrival Procession
Visitor Center & Van de Kamp

Simple improvements are proposed for the two main building complexes to create a more welcoming and organized arrival and pre/post garden experience.
Van de Kamp Hall & Courtyard

Conversion of VDK Hall into a full-time restaurant
Renovation of courtyard to serve as an extension of VDK Restaurant
Kiosk for cafe and/or gift shop pop-up

Visitor Center

More transparent ticket Windows
Enhanced arrival Plaza w/seating and branding
Monument Welcome Signage
Entry Court

Strategic upgrades to the Center Circle will provide an iconic arrival moment, improved circulation and a new train entry-point.
An iconic gateway shade structure will usher visitors into the gardens as they cross the bridge.

A giant specimen tree welcomes visitors after they cross the bridge. Enhanced planting will give a sense of what's to come.

Gateways lead from Entry Plaza to the gardens.

Upgraded paving and amenities will allow small groups to gather upon entry or exit with places to sit and wait for the train.
Gardens Loop

Experience the highlights of Descanso Gardens in this quick walk that visits the Rose Garden, Lake, and Japanese Garden.

½ mile / 10 - 30 minutes

Path Treatment
15' wide; Decorative Paving; Formal amenities; Seating at a frequent interval; Utilities run under

Key Experiences

- River of Roses
- Promenade
- Camellia Strolling Gardens
- Ancient Forest
- Marsh Garden
- Japanese Garden
Garden Loop
The River of Roses

Consolidating the roses into a singular feature with a path running through it creates a memorable and immersive experience.
The plan will preserve all iconic and significant trees within the garden. Event lawn surrounded by shade trees provides flexible space for programming.
New Meeting Pavilion & Boddy Lodge Improvements

This new facility adjacent to the River of Roses is flexible enough to welcome school groups or support large private events.
DESCANSO ROSE GARDEN | 2 DECEMBER 2015

PAVILION PROGRAM DIAGRAMS

WEDDING - 50 People
7 tables of 8 (60” Rounds)
10’x10’ dance floor

WEDDING - 250 People
25 tables of 10 (60” Rounds)
18’x18’ dance floor

WEDDING - 150 People
15 tables of 10 (60” Rounds)
15’x15’ dance floor

MOTHER’S DAY BRUNCH - 500 People
50 tables of 10 (60” Rounds)
Buffet + Bar

MEETING, CONFERENCE, or MEMORIAL

3 8’ Buffet Tables
15 Tables (60” Rounds) - seating for 120 or 150

FLOWER SHOW or CONVENTION

40 6’ tables

WEDDING - 250 People
25 tables of 10 (60” Rounds)
18’x18’ dance floor

MOTHER’S DAY BRUNCH - 500 People
50 tables of 10 (60” Rounds)
Buffet + Bar
Promenade

Simple upgrades to the existing Promenade will provide an enhanced linear experience with improved circulation, amenities, and flexibility for seasonal installations.
A flexible planting framework facilitates seasonal exhibits & fairs.
Camellia Strolling Gardens

The cornerstone of Descanso Gardens’ rich horticultural history, the Camellias are reorganized to create an immersive meandering garden where their variety can be showcased and truly appreciated.
Typical orchard planting strategy called "Quincunx"
Camellia Preservation

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<td>Fair</td>
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<td>Alive</td>
<td>10%</td>
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Legend
- Excellent Condition
- Good Condition
- Fair Condition
- Poor Condition
- Alive Condition
- Existing Oak Tree

Strategy
1. Remove Camellias designated Poor or Alive
2. Keep Excellent, Good, or Fair Condition
3. Move healthy Camellias away from Oak Root Zone
4. Transplant Camellias in the outer gardens to the Camellia Stroll Gardens

Existing Camellia Health

Proposed Footprint

Existing Footprint

Legend
- Excellent + Good + Fair (75%)
- (– Poor – Alive) (25%)

* Percentages based on Camellias that have been inventoried & catalogued in GIS by Descanso
Ancient Forest

One of Descanso’s best kept secrets, this forest garden will be expanded to hold additional ancient specimens with improved circulation to and through the collection.
Clockwise from left: Araucaria heterophylla; Metasequoia glyptostroboides; Calycanthus occidentalis; Encephalartos; Protea cynaroides
Marsh Garden

This garden collects and treats storm water harvested from the Winery Creek and provides interpretive opportunities around watersheds and the benefits of wetlands.
Woodland Walk

Get lost under majestic oak canopies, explore forest clearings and observe wildlife around the lake.

1 mile / 20–60 minutes

Path Treatment
10’ wide; Stabilized mulch or DG; Stone edging; Reclaimed wood decking along lake and at arroyo crossings.

Key Experiences
- Lake perimeter walk
- New Wetland Edges
- Oak Woodland
- Oak Canopy Walk
- Seasonal Stream
Woodland Walk
Lake Perimeter Walk

Engage the water edges on an elevated walk. Watch the birds from the Observation Terrace and walk through rushes, wetlands, over the waterfall.
Existing Lake Boardwalk

Observation Terrace w/ interpretive signage

Wetland “shelf” edges

Wetland “shelf” edges and floating wetlands within Lake
Lake Improvements

- Max Overflow (Large storms only)
- Operating depth +/- 2”-3”
- Low fill point

Even at low level, water can wick into planting shelves.

Regrade edge of lake to create shallow shelves for planting soil.

New waterproof liner.

Storage for irrigation (2-3 ft)

Soil levels reduce with depth.

Maintaining water between low and operating points will be more difficult in dry season without Hall Beckley

Liner anchor trench.
Oak Canopy Walk

Embrace the oak woodland on a spectacular meander through the mature canopies from the Camellia Stroll up a gently inclined elevated walk up to the Boddy House.
Clockwise from left to right: Kirstenbosch Centenary Tree Canopy Walk; Morris Arboretum Tree Adventure; Whiting Forest Canopy Walk.
Oak Woodland & Meadow

A more dedicated and regenerative native oak understory is opened up by the consolidation of the camellias.
Oak Restoration & Conservation

Diverse understory treatments within the Oak Canopy encourage the long term health of the oak woodland ecosystem. From the heart of the gardens to the upper wilds, the understory transitions from cultivated to natural along a gentle gradient, creating a variety of unique experiences under the oaks.

Oak Gardens
At the heart of the gardens, the understory below the oaks is curated for a special botanical experience under the oaks from the historic Camellias to other shade-tolerant botanical specimens.

Oak Savannah / Meadow
In the more open and sunnier areas perennial grasses, sedges and flowers intermixed would recreate a setting that is all too rare in the natural environment today.

Oak Woodland
At the uppermost and densest areas of the Oak Canopy, the understory is left to its own devices to encourage the establishment of Oak seedlings 10’ on either side of the drip line of the oaks. This will help achieve more age diversity and overall resiliency in oak woodland community.

Oak Woodland/Savanna Ecotone
As we move outwards towards the wilds, the understory becomes more natural. Taller perennial grass and shrub species would create the transition zone between the Savanna and the Oak Woodland.
Images above show different understory strategies for the Oak Woodland including meadow, savannah, natural oak mulch and curated shade tolerant species.
Nature Path

Meander through the wilder edges of Descanso Gardens on this walk focused on ecology and habitat

1½ mile / 30–75 minutes

Path Treatment
4’ – 6’ wide; Natural trail; Minimal seating; Wood decking at arroyo crossings

Key Experiences
• Nature Discovery Gardens
• California Native Gardens
• The Wilds & Wilds Loop
Nature Path
California Native Gardens

The variety of exposures and micro-climates of the hillside allows opportunities to expand the collection of native plant communities with a succession of distinct sensory and interpretive experiences.
San Gabriel High Country

Channel Islands

California Buckwheats

Succulent / Cactus Garden

Desert Arroyo Oasis

Chaparral / Scrub Restoration
Nature Discovery Gardens

A new set of gardens focus on discovering the environment and natural processes for the youngest audiences.
The Wilds Circuit

Explore beyond the fence line, taking advantage of scenic overlooks into the surrounding hills.
Service Loop

Separated from the visitor loops, this route is designed specifically for service maintenance and emergency access.

Path Treatment
• 20’ min. wide asphalt road (for Fire/Emergency Access)
• Use existing asphalt circulation as much as possible
• Minimize overlap with main pedestrian paths
• Gates at key junctures to discourage pedestrian use
• Where pedestrian use needed, designate pedestrian zone
• Widening & regrading needed on return from Boddy House

Key Areas
• Admin HQ & East Yard
• Nursery & West Yard
• Backstage & North Yard
Service Loop
Nursery & West Yard

Relocated and enhanced the new nursery and material yard support the horticultural staff's evolving needs and support the botanical mission.
Admin HQ & East Yard

An enhanced back-of-house and new administration building allow garden planning and operations a state of the art headquarters.
Backstage & North Yard

Designating the auxiliary parking lot for special guests and school groups allows for more targeted drop off and entry for these groups. The North Yard provides additional space for garden operations.
Parking & Arrival Sequence

Adjustments to vehicle circulation will improve orientation, safety and peak flows enhancing the overall entry experience.

Existing Parking Count

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Proposed Parking Count

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SCE Overflow = 70
Systems & Operations
Events & Programming

Re-positioning event spaces along the perimeter of the gardens will improve service access for set up and take down and minimize interruption to the general visitors’ experience. Improved infrastructure for power, lighting and catering will better support the production and functioning of these venues.

Event Locations & Access
• Relocate private venues to periphery of garden for easy access to BOH

Catering & Food Prep
• New prep kitchens
• Enhanced kitchens

Supporting Infrastructure
• Permanent lighting
• Power outlets for DJ, projectors, temporary kitchens, pop ups
• WiFi
• Bathrooms
Power & Data

Pathway construction provides an opportunity to economically install below-grade infrastructure, providing much needed power and data while maintaining minimal visual impact.

Electrical Power
- Convenience power outlets along the main Garden Loop
- Event power enclosures embedded in the landscape
- Power infrastructure will terminate in (2) service areas for either temporary generator hookups or permanent connection to the power grid
- Solar power will be installed on all new buildings
- Solar panels in the auxiliary parking lot will be considered after a feasibility study is conducted

Control
- Central control system can be remote accessed through a mobile app-based interface
- The control system will be zoned so that staff can turn on and off only those areas that are required as needed
- The control system will be modular and expandable to allow for future phases to be added
Simple landscape lighting accentuates key focal areas

Bollards and path lights along the main pathways

Integrated lighting at the Canopy Walk

Permanent Lighting

New permanent path and landscape lighting will improve safety to enable night-time activation and dramatically accentuate the collections in a way that provides a whole new Descanso experience.

Lighting Concepts

- **Bollard fixtures** will illuminate the central Garden Loop
- **Low-profile path lights** will illuminate the outer Garden Loop
- **Integrated handrail lighting** will illuminate the Canopy Walk
- **Pedestrian poles** will illuminate entry circulation
- **Vehicular poles** will light the maintenance loop & parking lots
- **Special programmable pole fixtures** along the Promenade will offer color-changing capability
- **Simple white uplighting** will accentuate the landscape at key focus areas
- **Pole-mounted general area lighting** will illuminate event spaces
Enchanted and Major Shows

The new designs conceived in the Master Plan along with the progression of existing signature areas of the garden will allow for both the development of existing Enchanted audience favorites as well as the opportunity for new experiences to be created.

Illumination

- New illuminated and accessible pathways will open up new areas to be included
- All new permanent lighting will eliminate the need for temporary egress lighting
- Areas with permanent landscape lighting can utilize color-changing fixtures to allow for “white light” looks but also remove the need for temporary equipment.

Power & Control

- Permanent power infrastructure will alleviate the significant task of installing temporary power for Enchanted. This will have a sizable impact on operation costs and efforts, as well as improving guest and wildlife safety and convenience.
- The new lighting control system will allow for show control integration so that installed permanent lighting can be creatively integrated with the show experience.
Wildlife Management

Revisions to the perimeter fencings will allow for greater wildlife connectivity through Descanso’s 80 acres of wildlands.
Wastewater Management

Existing bathrooms will be upgraded while new restrooms will add needed facilities for visitors throughout the garden.

Improvements include: aesthetic updates to Promenade restrooms; expansion of Minka bathrooms for potential public use; upgrades to existing restroom at Boddy Lodge for staff use; new public restrooms at Nature Discovery Zone.

Existing and new bathrooms will be tied into the recently installed MBR (membrane bioreactor) which filters, treats and cleans wastewater to a high level useable for irrigation. All treated wastewater is intended for irrigation in the parking lot and entry garden. During periods of drought, when the lake levels are low, it is possible to supplement the lake with the treated wastewater.
Enhance ecological performance of main water features, optimizing the lake for stormwater capture for non-potable use.

**Lake & Stream Improvements**
- Dredge lake sediments and improve aeration system
- Install new liner in Lake and Stream to reduce leaking
- Regrade Lake to create wetland shelves, sediment bays and floating wetlands
- Install check dams to minimize sedimentation into lake
- Install Irrigation Reuse Pump
- During drought, when the lake levels are low, it is possible to supplement the lake with the treated wastewater

**Winery Creek & New Treatment Wetland**
- Harvest water from Winery Creek for lake refill and irrigation
- Bioretention and detention basins at the low point of creek for supplemental water storage and irrigation reuse
- Expand stream re-circulation pool to a bioretention basin
Water Infrastructure Improvements

**Lake Wetland Shelf System**

- New waterproof liner
- Liner anchor trench
- Regrade edge of lake to create shallow shelves for planting soil
- Even at low level, water can wick into planting shelves

**Max Overflow (Large storms only)**
- Operating depth +/- 2"-3"
- Low fill point
- Storage for irrigation (2-3 ft)

**Soil levels reduce with depth**
- Maintaining water between low and operating points will be more difficult in dry season without Hall Beckley

**Water Circulation System**

- **Winery Creek Channel**
- **Stormwater Runoff (Catchments L)**
- **MBR Treated Wastewater** (only in drought)
- **Recirculating Pond**
- **Marsh Garden**
- **Lake**
- **Irrigation**
- **Stream**
- **Pump (only in winter)**
- **Pump**
### Water Budget Existing

**Sources**

- **Valley Water**
  - 47 acre-ft/yr

- **Hall Beckley**
  - 50 acre-ft/yr

**Uses**

- **Irrigation**
  - 80 acre-ft/yr

- **Domestic**
  - 7 acre-ft/yr

- **Lake**
  - 10 acre-ft/yr

**Challenges**

- Losses to inefficient equipment and metering, other water features, no reuse of recycled wastewater
- Losses to evaporation and leaking
- Natural rainfall and runoff entering lake from landscape

#### Sources

- **Hall Beckley**
  - 50 acre-ft/yr

- **Valley Water**
  - 47 acre-ft/yr

#### Uses

- **Irrigation**
  - 80 acre-ft/yr

- **Domestic**
  - 7 acre-ft/yr

- **Lake**
  - 10 acre-ft/yr
Water Budget Future

Potential Offset: 30-53 acre-ft/year

Sources

- Valley Water: 43-70 acre-ft/year
- Hall Beckely: 0 acre-ft/year

Uses

- Lake: 10 acre-ft/year
- Irrigation: 80 acre-ft/year
- Domestic: 7 acre-ft/year

Solutions

- Lake Improvements: 7-9 acre-ft/year
- Stormwater Capture: 5-8 acre-ft/year
- Irrigation Efficiency: 12-26 acre-ft/year
- Waste Water Recycling: 7-10 acre-ft/year
Summary
Master Plan Objectives

1. World Class Botanical Collections

Preserve and enhance Descanso’s unique landscape and botanical collections.

Camellia Strolling Gardens
Reorganize collection to enhance the immersive experience of the Camellia Forest

The Rose Garden
Reconfigure collection for optimal viewing & enjoyment

Ancient Forest
Expand this unique collection

Nursery & Horticulture
Enhance operational spaces to support the botanical mission
Master Plan Objectives

2. Seamless Visitor Experience

Improve visitor accessibility at Descanso Gardens in accordance with the Americans with Disabilities Act (ADA)

Circulation Framework
Re-align and re-grade paths to better guide visitors through the gardens and provide improved accessibility

Visitor Amenities
Separate special events from daily visitors with a new meeting pavilion and improve restroom distribution

Parking Reorganization
Optimize parking facilities, including a minimum of 750 parking spaces
Master Plan Objectives

3. Exemplary Environmental Stewardship

Protect and enhance Descanso’s natural assets through ecological restoration, enhanced water conservation, and habitat considerations.

Habitat & Wildlife
Create and enhance wildlife habitat

Camellias and Oaks
Enhance the immersive experience of the Camellia Forest while protecting native oak trees

Woodland Restoration
Restore the understory of the oak woodland

Wildlife Corridor
Support directed movement of mammals around the gardens
Master Plan Objectives

4. Resilient Infrastructure

Enhance the long term resilience of Descanso by optimizing botanical relationships and reducing off-site dependency of water and energy resources.

Marsh Garden & Parking
Create opportunities to collect and filter stormwater for on-site re-use

Lake & Stream
Recalibrate water features for collection and storage or irrigation water

Wastewater
Re-use on site wastewater for irrigation & lake recharge

Solar Energy
Install solar energy infrastructure to buildings for on-site energy use
Master Plan Objectives

5. Revealing Stories

Celebrate Descanso’s rich cultural and ecological assets through meaningful storytelling.

Interpretive Signage
Improve educational opportunities through enhanced interpretive signage and programming

Featuring Oaks
Celebrate this defining feature of the garden with the oak woodland restoration and canopy walk

Nature Discovery
Create opportunities for hands-on education and environmental instruction
Master Plan Objectives

6. Operational Excellence

Create streamlined operations to enable a more efficient and productive team.

Admin Headquarters
Construct new administrative offices to support the planning and operational staff of the gardens

Maintenance Loop
Separate maintenance circulation from pedestrian pathways to minimize conflicts for both staff and visitors

Utilities & Infrastructure
Improve efficiency for distribution of utilities including power, lighting, and water