

CITY OF PACIFIC GROVE

Department of Public Works

George Washington Park

Forest Management Plan

Prepared by:

John Kenney, Urban Forester (ISA Certified Arborist/Urban Forest Professional #PN-6601AM)

George Fuerst, Environmental Program Manager

Date: ~~May~~ October 2026

Location: George Washington Park, Pacific Grove, California

This plan supersedes the forest management components of the 1999 George Washington Park Master Plan and integrates findings from biological assessments, fire management plans, and field observations to provide an actionable~~, zone-~~

~~based~~ framework for the responsible stewardship of the George Washington Park urban forest.

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1. EXECUTIVE SUMMARY

This plan provides a comprehensive strategy for managing forest health, wildlife habitat, and wildfire risk in George Washington Park (GWP). It integrates findings from biological assessments, fire management plans, and field observations, aligning with CEQA guidance and council-adopted documents.

George Washington Park is approximately 20 acres of urban forest that represents the largest contiguous Monterey pine forest within the City of Pacific Grove. The park serves as an irreplaceable ecological resource providing habitat for rare and common flora and fauna, while also functioning as an active and passive recreational area for residents and visitors.

This plan addresses long-standing management gaps identified since the adoption of the 1999 George Washington Park Master Plan and establishes a clear, zone-based action framework. The three overarching priorities guiding all management decisions are:

Core Management Priorities

ECOLOGICAL INTEGRITY – Protect, preserve, and restore native forest and associated habitats

PUBLIC SAFETY – Reduce wildfire risk to the park and adjacent residential structures

LONG-TERM SUSTAINABILITY – Ensure the park remains a healthy, thriving urban forest for future generations

Key findings driving immediate action include: aging pine stands with limited regeneration, significant invasive species encroachment, elevated surface and ladder fuel loads near homes, and the presence of sensitive species requiring careful scheduling of management activities.

2. INTRODUCTION

Park Overview

George Washington Park (GWP) encompasses 20 acres in the heart of Pacific Grove, California. It contains the largest contiguous stand of Monterey pine (Pinus radiata) within city limits – a species classified as endangered in their native California range by the International Union for Conservation of Nature (IUCN) and found naturally in only five locations worldwide. The park provides irreplaceable ecological benefit including carbon sequestration, stormwater absorption, urban heat mitigation, and critical wildlife habitat.

The park supports active recreation (baseball, trails, picnicking, play structures, and open play areas) alongside passive recreation and nature observation. This dual-use character requires careful, zone-specific management to balance human enjoyment with the needs of the ecosystem.

History and Monarch Habitat

The 1999 George Washington Park Master Plan has guided management of the park since its adoption. In the City's General Plan, GWP is designated as a Natural Resource, a Community Park, a Natural Area for recreation, and Open Space.

GWP is a unique site for western monarch butterflies and is one of the few remaining native tree habitats for overwintering western monarchs. Monarchs have not utilitzed the site for overwintering in substantial numbers since 2006. Due to the historic presence of monarchs at the site and the habitat conditions, the 2024 Biological Resources Report found that the site could potentially support overwintering monarch butterflies in the future and that this species has a high potential for occurrence.

Background & Purpose

The 1999 GWP Master Plan, while foundational, requires updating to reflect current conditions, new scientific findings, evolving regulatory requirements, and accepted best management practices of urban forests. Since 1999, several supplemental plans and reports have been produced by qualified consultants addressing forest management, wildfire protection, and biological resources.

This plan seeks to review all existing plans and develop a consolidated summary with a defined action plan moving forward, in full compliance with the California Environmental Quality Act (CEQA).

Plan Objectives

This plan establishes a framework to achieve the following objectives:

- Reduce wildfire risk in the park and to surrounding homes within 100' defensible space perimeter

- Restore forest health and protect habitat for native flora and fauna
- Preserve the natural aesthetic of the park
- Address compounding impacts from soil compaction, drought, disease, and invasive species
- Ensure safe public access to park trails and facilities
- Protect sensitive species including Yadon's rein orchid *Platanthera yadonii,* formerly *Piperia yadonii*, ~~piperia~~ (a federally endangered orchid) and monarch butterfly overwintering habitat
- Build a repeatable annual maintenance program that reduces treatment intensity over time

3. MANAGEMENT ZONES & PRIORITIES

GWP is divided into four management zones based on ecological sensitivity, fire risk, and use patterns. All zones are managed in service of the core management priorities. Each zone has distinct management ~~priorities~~ focuses and treatment prescriptions. All zones also share a common obligation to implement Cal Fire defensible space fuel reduction within 100 feet of adjacent structures.

Zone	Primary Focus	Key Notes
Zone 1	Trail safety; poison oak control; invasive annual grass reduction	Active recreation area; highest public use
Zone 2	Yadon's ~~piperia~~ rein orchid protection; French broom and invasive species removal	North of baseball field; sensitive species present
Zone 3	Pine regeneration support; invasive species control; monarch habitat restoration	Interior forest; focus on native habitat restoration, historic site of monarch overwintering
Zone 4	Wildfire fuel reduction; removal of dense dead/downed trees and ladder fuels	NW corner; highest fire risk; priority treatment area
All Zones	Cal Fire defensible space (100' from structures); invasive species reduction; monarch habitat restoration; avian protections	Invasive species reduction; annual perimeter mowing ~~in entire perimeter as well~~

Zone 4 – Northwest Corner: Highest Priority

Zone 4 requires the most urgent attention. The northwest corner of the park contains dense accumulation of dead standing trees, downed logs and branches, and invasive surface fuels adjacent to residential structures. This combination of surface and ladder fuels creates conditions for rapid fire spread. Initial treatments should be concentrated here before moving to other zones.

Defensible Space Requirement (All Zones)

The Dudek-prepared Community Wildfire Protection Plan (CWPP) for Monterey, Carmel-by-the-Sea, and Pacific Grove (2023) states that fuel reduction is conducted annually within 100 feet of the homes surrounding the park. The "U"-shaped management strip generally measures 30 to 40 feet wide and runs from Gibson Avenue on the east, around the north end, to Melrose Drive on the west. It widens to 100 feet at the northwest corner, where homes back directly onto the park boundary. Vegetation management in this strip should adhere to CAL FIRE's defensible space requirements, and the City will continue annual treatment consistent with the CWPP.

~~Per the Dudek Wildfire Protection Plan, fuel reduction activities must be conducted annually within 100 feet of homes surrounding the park. This "U-shaped" management strip runs from Gibson Avenue on the east, around the north end, to the 17 Mile Drive / Melrose Drive intersection on the west. The strip widens to 100 feet at the NW corner where homes back directly onto the park boundary. Vegetation management in this strip must adhere to CAL FIRE's defensible space requirements.~~



(Denise Duffy and Associates, GWP Biological Resources Report 2024)

4. ECOLOGICAL CONDITIONS & FIRE RISK

Current Ecological Conditions

Monterey Pine Forest

The Monterey pine stands at GWP include trees ranging from 1–100+ years of age. Natural regeneration is significantly limited due to soil compaction ~~from recreational use~~, competition from other species, including invasive species, insect infestations, forest pathogens such as pitch canker, and the effects of prolonged drought. Without active intervention, the aging canopy will not be replaced by a self-sustaining younger cohort, threatening the long-term viability of the forest.

About Monterey Pine (Pinus radiata)

Monterey pine is listed as Endangered on the IUCN Red List. Its native range is restricted to three mainland California locations (Ano Nuevo, Monterey Peninsula, Cambria) and two Mexican islands.

Pacific Grove's urban Monterey pine forest is both locally irreplaceable and globally significant. All management decisions must weigh this context.

Invasive Species

Non-native invasive species represent one of the greatest threats to GWP's ecological integrity and pine forest regeneration. Current infestations include, without limitation:

- Cape ivy (Delairea odorata) – Zones 3 & 4; smothers understory vegetation
- Sydney golden wattle (Acacia longifolia) – Nitrogen-fixing; alters soil chemistry
- French broom (Genista monspessulana) – Zone 2; highly flammable; prolific seed producer
- Lollipop tree (Hakea sericea) – Dense, highly flammable shrub
- Pride of Madeira (Echium candicans) – Outcompetes native shrubs
- Non-native annual grasses – All zones; primary surface fuel; creates fire-promoting thatch layer

Wildfire Risk Assessment

GWP is not listed in Cal Fire's 2025 Fire Hazard Severity Zone (FHSZ) map at the moderate, high, or very high tier. However, the 2023 Community Wildfire Protection Plan identifies the park as a significant fire risk due to fuel accumulation, structural interface proximity, and slope/aspect conditions. The discrepancy between the FHSZ map and on-the-ground conditions underscores the need for this plan's proactive approach.

Fire Hazard Summary

Cal Fire FHSZ Designation: Not classified as moderate, high, or very high (2025)
Community Wildfire Protection Plan (2023): Identifies GWP as significant fire risk
Primary fuel concern: Dense dead wood piles and invasive grass near homes (surface fuels)
Secondary concern: Ladder fuels linking surface fuels to tree canopy
Priority action area: Northwest corner (Zone 4) adjacent to residential properties

Best Time of Year for Work

Mid-September through early October represents the optimal window for ~~all~~ management activities. This period avoids the monarch butterfly overwintering season (Oct 1 – Apr 30), the nesting bird season (Feb 1 – ~~Sept 1~~Aug 31), and bat maternity season (May – Aug) providing a short window of time for invasive species work before the onset of winter rains.

5. SEASONAL WORK SCHEDULE & WILDLIFE CONSTRAINTS

All management activities must be carefully timed to avoid conflicts with protected species and their critical life stages. The tables below provide the ~~approved~~ recommended scheduling framework for City staff, contractors and volunteers.

Recommended Activity Schedule

Activity	Best Time Window	Rationale
Dead Tree Removal / Fuel Reduction	Sept 1 – ~~Oct 1~~Sept 30	Avoids monarch, raptor, nesting bird, and bat maternity seasons
Wildlife Snag Creation	~~September – October~~Sept 1-Sept 30	Ideal for bats; retains habitat value while reducing hazard
Invasive Plant Removal	Mar–May & Sept–Oct	Spring: prevents reseeding. Fall: minimizes bird nesting disturbance
Native Shrub & Tree Planting	Late Fall – Early Winter	Best root establishment with winter rainfall
Invasive Grass Mowing	Spring (March – May)	Removes plants before seed set; reduces next-year fuel load

Wildlife Protection – Restricted Periods

Species / Group	Restricted Period	Required Action
Monarch Butterfly	Oct 1 – Apr 30	No tree removal, pruning, or disturbance in or near overwintering area
Raptors & Nesting Birds	Feb 1 – ~~Sept 1~~Aug 31	Pre-work nesting survey required if any work occurs in this period
Bats (Western Red Bat)	May – August	Avoid removal of large dead or live trees unless surveyed
Yadon's ~~Piperia~~ rein orchid	May – August	Survey before any work in Zone~~s~~ 2 or previously identified occurrence areas~~–4~~

Primary Work Window Detail: Sept 1 – ~~Oct 1~~Sept 30

This ~~month-long~~month-long window is the recommended focus period for intensive work. The following activities may proceed without biological surveys during this period:

- Remove small dead and hazard trees (chip, scatter, or retain as snag)
- Create wildlife snags from large dead trees requiring removal for safety
- Remove invasive shrubs and vines (French broom, Cape ivy, Sydney golden wattle)
- Begin site preparation for late-fall native shrub planting

Secondary Work Window: Spring (March – May)

Spring treatments focus on invasive species removal before seed set, which is critical to reducing the following year's fuel load and weed pressure. Note: All spring work requires pre-construction nesting bird surveys if occurring before September 1.

- Mow invasive annual grasses to 4" height before seed set
- Remove French broom before seed pods mature
- Cape ivy cutting and removal from tree trunks in Zones 3 & 4

Emergency Work: As Needed

Emergency work may be authorized outside of the primary and secondary windows when conditions require immediate action to protect public safety or prevent significant ecological harm. All emergency work must be approved in advance by the City Urban Forester or Director of Public Works. When feasible, a qualified biologist shall be consulted prior to work commencing, particularly if sensitive species or their habitat may be affected.

Emergency work may include:

- Removal of hazard trees or large limbs posing an imminent risk to park users, trails, or adjacent structures
- Response to storm damage, windthrow, or sudden structural failure of standing trees
- Emergency fuel reduction in response to an elevated fire weather watch or red flag warning
- Containment of rapidly spreading invasive species infestations threatening to overwhelm sensitive habitat

6. STRATEGIC ACTIONS

The following prescribed actions are organized by management category. All work shall be conducted with hand crews and walk-behind equipment when feasible. Large wheeled or tracked machinery shall be used only when necessary, as specified.

6.1 Vegetation & Fuel Management / Fire Hazard Reduction

These actions target the park's highest fire risk areas and are the most time-sensitive given the residential interface. Annual repetition will shift from intensive initial treatment to lighter maintenance over time.

- Remove small dead trees within 100' of homes (chip on-site, scatter, or retain as wildlife snag)
- Raise canopy by removing dead branches and live branches of 4" or less diameter to achieve 6-10' overhead clearance. Live limbs of 4" or ~~less~~ more diameter will not be removed.
- Mow invasive grasses to 4" height or less; repeat at appropriate seasonal intervals to reduce invasive grasses
- Remove invasive plants and vines ~~(e.g. Cape ivy)~~
- Scatter concentrations of downed logs on-site to reduce fuel bed depth

6.2 Forest Habitat Restoration

Interior forest restoration focuses on Zones 2–4, away from the Cal Fire defensible space perimeter. The goal is to re-establish a self-sustaining, multi-aged Monterey pine forest with a native shrub understory.

- Remove non-native invasive plants preferably using hand crews and hand tools
- Plant native shrubs including: toyon (Heteromeles arbutifolia), coffeeberry (Frangula californica), ceanothus (Ceanothus spp.), currant (Ribes spp.). Note: ~~Native shrubs shall NOT be planted within 100' of structures per Cal Fire defensible space guidelines.~~ Native shrubs planted within 100' of structures shall be spaced and maintained in accordance with Cal Fire defensible space guidance.
- Identify~~, flag,~~ and protect Monterey pine seedling regeneration sites; cage if necessary
- Apply coarse wood chips from non-diseased trees around new plantings to suppress weeds and retain soil moisture
- Retain high-value wildlife snags (topped dead trees) for bat roost and cavity-nesting bird habitat
- Use downed healthy logs to establish a controlled trail system that minimizes soil compaction and root damage

6.3 Wildlife Protection

- Retain ~~all~~ viable wildlife snags (dead topped trees) for bat and bird habitat - do not remove unless posing an imminent hazard
- Create naturalistic wildlife snags whenever possible, mimicking natural fractures rather than smooth, flat cuts
- Conduct pre-work biological surveys by a qualified biologist as required by seasonal schedule
- Avoid all work during monarch overwintering, nesting bird, and bat maternity seasons as required
- Mark and fence off Yadon's ~~piperia~~ rein orchid populations ~~in Zone 2~~ during ~~all~~ work periods

6.4 What Will NOT Be Done

The following practices are not planned to be utilized ~~explicitly prohibited~~ under this plan:

- No grazing by goats, cows, or other ruminants
- No removal of live trees unless they present an imminent safety hazard or are confirmed diseased/dying by a qualified arborist
- No removal of native shrubs or plant species unless required for fire risk reduction within the defensible space perimeter or for maintenance of established trails
- No use of large wheeled or tracked machinery for routine maintenance; hand work and small walk-behind equipment whenever possible
- No use of herbicides, fungicides, pesticides, or rodenticides ~~of any kind~~, except as a last resort in accordance with the City of Pacific Grove Integrated Pest Management Guidelines

6.5 Labor & Volunteer Coordination

- Prioritize zone-by-zone implementation
- Use hand crews and walk-behind equipment ~~only~~
- Coordinate with City Urban Forester and City Public Works crews for scheduling and access
- Engage with Green Cadre (Monterey County youth conservation program), Cal Fire Gabilan Crew, and other contracted and volunteer work crews
- City staff will guide volunteers and contractors to ensure all work follows the Plan, including its zone prescriptions, species protections, and seasonal work schedules.
- Volunteers and contractors will not plant or perform any work outside the scope of the Plan or without prior coordination with City staff.

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7. CEQA COMPLIANCE

All management activities described in this plan have been evaluated for compliance with the California Environmental Quality Act (CEQA). The following determinations apply:

CEQA Status Summary

Dudek Memo (2022): Class 4 Categorical Exemption applies

Trigger threshold: CEQA is not triggered for routine defensible space and fuel reduction work.

Broader restoration: Additional CEQA analysis may be required for larger-scale interior forest restoration work in Zones 2–4 beyond routine maintenance.

Recommendation: Consult with City staff and legal counsel before commencing any activities that exceed the Class 4 Categorical Exemption scope.

The project proponent (City of Pacific Grove) shall maintain documentation of all CEQA determinations and categorical exemption filings. Any new work program that expands the scope beyond defensible space maintenance shall be reviewed prior to commencement.

8. MONITORING & EVALUATION

Ongoing monitoring is essential to measure progress toward plan objectives, detect emerging threats, and inform adaptive management decisions. The following monitoring protocols shall be implemented:

Core Monitoring Activities

- Yadon's ~~Piperia~~ rein orchid: ~~Weekly~~ Pre-work monitoring during active growth season (May–August) in Zones 2
- Pine Regeneration: Track emergence, survival, and growth rates at flagged sites
- Native Shrub Survival: Annual spring assessment of all planted shrubs; record survival rates and replace losses
- Invasive Species: Biannual monitoring of treatment areas (spring and fall)
- Fuel Load: Annual pre-fire-season assessment (August) of surface fuel accumulation, dead wood, and grass coverage in the 100' defensible space perimeter
- Wildlife: Document observations of monarch butterfly, raptors, and bats during work periods; report significant sightings to City staff and California Department of Fish & Wildlife

9. FUNDING & RESOURCES

Sustained multi-year funding is required to implement and maintain this plan. The following resource needs and potential funding sources have been identified:

Resource Needs

Resource	Description
Hand Crew Labor	Licensed, insured crews for tree work, invasive species removal, and planting
Native Plant Stock	Toyon, coffeeberry, ceanothus, currant, and native tree stock; sourced from Central Coast native nurseries
Biological Surveys	Pre-work nesting bird, Yadon's piperia, bat, and monarch habitat surveys as required
CEQA Analysis	Environmental review for work exceeding Class 4 Categorical Exemption
Equipment & Supplies	Mowers, hand tools, plant cages, erosion control materials
Annual Monitoring	Biologist time for annual species and vegetation monitoring protocols

Potential Funding Sources

- City of Pacific Grove General Fund – Annual Public Works maintenance budget appropriation
- CAL FIRE Urban & Community Forestry Grants – Competitive grants for community forestry and fire risk reduction
- California Coastal Conservancy – Habitat restoration grants for coastal ecosystems
- Volunteer Labor – Green Cadre youth program, Cal Fire Gabilan Crew, City Volunteers, Volunteer Organizations, Community work days.

10. CONCLUSION

George Washington Park is one of Pacific Grove's most treasured natural assets, a living forest that connects residents to the ecological heritage of the Monterey Peninsula. At 20 acres, it harbors rare Monterey pine in their native range, provides habitat for a federally ~~threatened~~ endangered orchid and monarch butterflies, and creates a green refuge at the center of a dense residential community.

This Comprehensive Forest Management Plan provides a strategic, science-based framework to use current best management practices to address the park's most pressing challenges: wildfire risk to adjacent homes, invasive species encroachment, aging pine stands with limited regeneration, and the need for careful coordination with sensitive wildlife species.

The zone-based approach allows the City to direct limited resources to the highest-priority areas first: beginning with Zone 4's elevated fire risk, while building toward a park-wide restoration program that will improve long term ecological health. The seasonal work calendar and wildlife protection protocols ensure that restoration and safety goals are met responsibly.

Ongoing monitoring, consistent annual maintenance, and continued community engagement will be essential to this plan's success. The City of Pacific Grove has the opportunity to model responsible urban forest stewardship that serves both people and nature for generations to come.

11. BIBLIOGRAPHY & DOCUMENTS REVIEWED

The following documents were reviewed and incorporated into the development of this plan:

City of Pacific Grove George Washington Park Master Plan (1999, City Council Adopted)
Available: City of Pacific Grove Document Center.

City of Pacific Grove George Washing Park Forest Management Plan (Dudek 2022, Rejected)
Available: City of Pacific Grove Document Center.

City of Pacific Grove-George Washington Park Forest Management Plan Revised Memo (Dudek 2022, Received)
Available: City of Pacific Grove Document Center

Community Wildfire Protection Plan for Monterey, Pacific Grove, and Carmel-by-the-Sea (Dudek 2023, Adopted)
Available: City of Pacific Grove Document Center

George Washington Park Biological Resources Report (Denise Duffy & Associates 2024, Received)
Available: City of Pacific Grove Document Center

Creekside Monarch Sanctuary Management Plan
Available: City of Pacific Grove Document Center

CAL FIRE Fire Hazard Severity Zone Map (2025)
Available: CAL FIRE