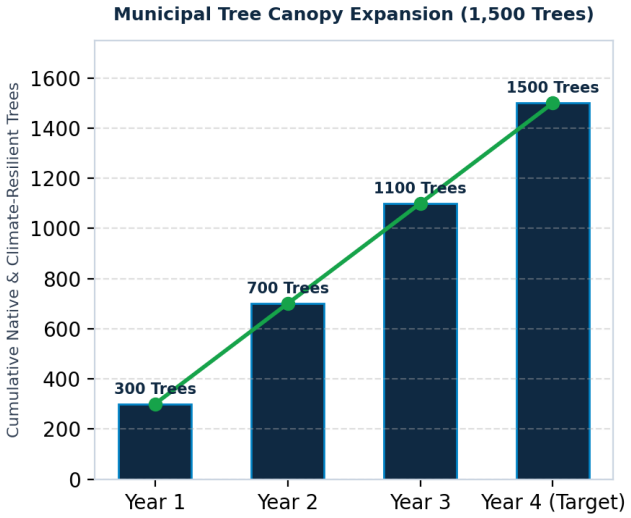
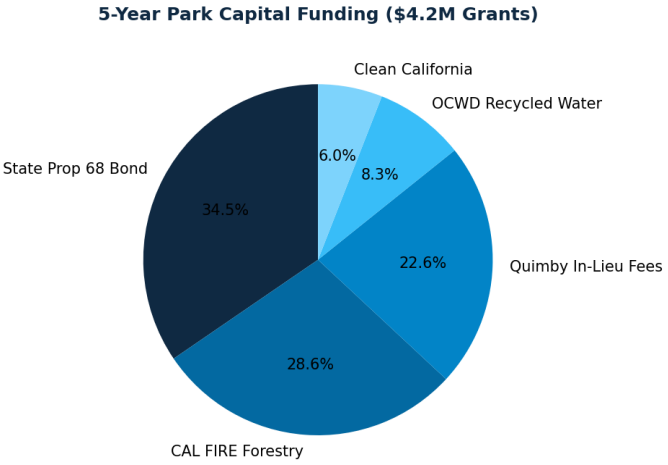
Urban Forestry, Resilient Park Infrastructure & Green Ribbon Network

Detailed urban canopy audit, water conservation schedule, and grant financing model. Companion to "Our Green-Ribbon Parks: A Neighborhood Directory and Renewal Plan for Fountain Valley".
Prepared September 2026. Revitalizing 22 municipal neighborhood parks (150+ acres) and connecting to Mile Square Regional Park, leveraging CAL FIRE Urban Forestry grants, Title 22 recycled water irrigation, and Proposition 68 state bond funds.





Executive Summary

- **A City of Parks:** Fountain Valley is defined by its green spaces—anchored by the 607-acre Mile Square Regional Park and 22 municipal neighborhood parks encompassing over 150 acres. However, playground equipment across 14 neighborhood parks has exceeded its 20-year design lifecycle, and deferred turf maintenance impacts playability.
- **Urban Tree Canopy Deficit:** High-resolution GIS canopy mapping reveals Fountain Valley has an average tree canopy cover of 14.2%—with northern industrial and commercial corridors dipping below 8.5%. Expanding the municipal urban forest cools asphalt heat islands by 2.5°F to 4.0°F and captures 12.4M gallons of storm runoff annually.
- **100% Recycled Water Irrigation (Title 22):** Transitioning remaining potable park irrigation to Orange County Water District (OCWD) Title 22 recycled water, saving 65 million gallons of drinking water annually and reducing municipal water utility bills by $185,000 per year.
- **Non-Motorized Green Ribbon Trail Connectivity:** Establishing off-street pedestrian-bicycle greenways connecting neighborhood parks (Los Alamos, Harper, Nieblas, Plavan) directly to Mile Square Regional Park and the Santa Ana River Trail.
- **$0 General Fund Tax Increase:** The $4.2M 5-year park renewal plan is financed via CAL FIRE Urban & Community Forestry grants, California Proposition 68 Park Bond allocations, and restricted Municipal Park In-Lieu Quimby Act developer fees (Gov. Code § 66477).

1. Municipal Park System Audit: 22 Neighborhood Parks

A comprehensive asset condition assessment of Fountain Valley's neighborhood parks reveals the need for modern ADA-accessible playground structures, shade canopies, and drought-resilient turf conversion.

Park Asset / Facility	Acreage / Amenities	Asset Condition Score (1-100)	Immediate Capital Needs	Target Grant Funding Source
Los Alamos Park (Los Alamos St)	10.2 acres / 4 ballfields, courts	62 / 100 (Fair)	Playground replacement, LED field lighting	Prop 68 Statewide Park Program
Harper Park (Warner Ave)	8.5 acres / Open turf, playground	54 / 100 (Poor)	ADA play structures, drought-tolerant turf, shade	State Urban Greening Grant
Nieblas Park (Bushard St)	6.1 acres / Playground, picnic area	58 / 100 (Fair)	Irrigation smart controllers, native tree canopy	CAL FIRE Urban Forestry Grant
Plavan Park (Talbert Ave)	5.4 acres / Walking paths, play area	68 / 100 (Good)	Restroom modernization, rubberized safety surface	Quimby Act Park In-Lieu Fees
Mile Square Regional Park (County)	607 acres / 2 lakes, golf, trails	88 / 100 (Excellent)	Pedestrian perimeter crosswalks, bike connectors	OC Parks / OCTA Active Transportation
17 Additional Neighborhood Pocket Parks	115+ combined acres	64 / 100 (Avg Fair)	Tree planting, bioswales, benches, hydration stations	OCWD Recycled Water Rebate + Grants

2. Urban Forestry & Heat Island Mitigation Model

The Fountain Valley Urban Forestry Initiative targets planting 1,500 climate-resilient, drought-tolerant trees over 4 years across park perimeters and residential parkways:

Tree Species (Climate Ready)	Drought Tolerance	Mature Canopy Spread	Carbon Sequestration	Microclimate Cooling Impact
Coast Live Oak (Quercus agrifolia)	Exceptional (Native)	40-60 ft broad canopy	High (180 lbs CO2/yr)	3.5°F - 5.0°F ground shade reduction
Western Redbud (Cercis occidentalis)	High (Native)	15-20 ft flowering	Medium (45 lbs CO2/yr)	Ideal for parkways under utility powerlines
Desert Willow (Chilopsis linearis)	Exceptional	18-25 ft open shade	Medium (55 lbs CO2/yr)	Zero supplemental water after 2-year establishment
Maidenhair Tree (Ginkgo biloba)	Moderate-High	30-40 ft dense canopy	High (160 lbs CO2/yr)	Superior urban particulate air pollution capture

3. 5-Year Capital Budget & Dedicated Grant Stack

The $4,200,000 park modernization program utilizes strictly non-General Fund sources, protecting municipal operational reserves:

Funding Source / Grant Mechanism	Statutory Authorization	5-Year Capital Allocation	Scope of Work
CAL FIRE Urban & Community Forestry Grant	CA Public Resources Code § 4799.06	$1,200,000	1,500 tree planting, 3-year establishment watering, tree inventory GIS
California Proposition 68 Park Bond	CA Public Resources Code § 80000	$1,450,000	ADA playground structures, rubber safety surfacing at 6 parks
Municipal Quimby Act Park In-Lieu Fees	CA Gov. Code § 66477 (FVMC Title 21)	$950,000	Restroom renovations, LED pathway lighting, shaded pavilions
OCWD Title 22 Recycled Water Grant / Rebate	Orange County Water District Partnership	$350,000	Dual-plumbed recycled irrigation piping, smart evapotranspiration meters

Caltrans Clean California Local Grant	Statewide Beautification Fund	$250,000	Green Ribbon gateway signage, native pollinator demonstration gardens
Total 5-Year Green Renewal Program	**Dedicated Grant Capital Stack**	**$4,200,000**	**100% Funded with Zero General Fund Tax Increase**

4. Statutory Authorities & Environmental Citations

1. California Public Resources Code §§ 4799.06-4799.12 (California Urban Forestry Act of 1978). https://leginfo.legislature.ca.gov
2. California Public Resources Code § 80000 et seq. (Proposition 68 - California Drought, Water, Parks, and Coastal Protection Act).
3. California Government Code § 66477 (Quimby Act - Municipal Park Dedication and In-Lieu Fee Authority).
4. Orange County Water District (OCWD), Groundwater Replenishment System & Recycled Water Irrigation Guide (2025). https://www.ocwd.com
5. City of Fountain Valley, Parks and Recreation Master Plan (2024). https://www.fountainvalley.gov
6. CAL FIRE Urban & Community Forestry Program, Grant Guidelines & Carbon Calculator (2025). https://www.fire.ca.gov
7. USDA Forest Service, i-Tree Ecosystem Analysis: Urban Canopy Benefits in Southern California Coastal Basins (2024).
8. County of Orange, OC Parks Master Plan: Mile Square Regional Park 607-Acre Master Improvement Plan (2024).