# FERN RAVINE RESOURCE CONSERVATION AREA <br> FRIENDS OF SAUSAL CREEK (FOSC) 


#### Abstract

Friends of Sausal Creek is a community-based, 501 c 3 nonprofit organization dedicated to the restoration, maintenance, and protection of Oakland's Sausal Creek Watershed.


Friends of Sausal Creek (FOSC) are proposing that the City of Oakland designate the Fern Ravine Resource Conservation Area (RCA) across the 70-acre sub-basin encompassed by the 500-acre Joaquin Miller Park (Park), and calling for the City to prepare a Master Plan for the Park as pledged by the City Council when it adopted the Open Space, Conservation, and Recreation (OSCAR) Element of the General Plan in 1996.


Figure 1: Fern Ravine sub-basin

## SAUSAL CREEK

Sausal Creek watershed encompasses 2,656 acres of the city, and has been central to local communities since the Ohlone. Sausal Creek is one of Oakland's nine major creeks and is home to over 250 plant species and nearly 137 bird species that inhabit the riparian corridor and uplands.

## FERN RAVINE

Fern Ravine Creek is a 70-acre "headwater" sub-watershed of Sausal Creek within the native redwood forest of Joaquin Miller Park, comprising 15\% of the Park's total area. It is a biological hotspot; one of the least disturbed and ecologically critical tributaries to Sausal Creek.

In 2010, FOSC began restoring the 8.5 acre headwaters wetland and Fern Ravine creek. Extraordinary results have been achieved since then, and the revival of Fern Ravine has set the stage for designating the entire sub-basin as a Resource Conservation Area (RCA). Such a designation would be entirely consistent with the OSCAR Element's provision to designate RCAs, and could advance on parallel tracks with the anticipated, years-long effort required to fund, coordinate, prepare, and approve the Master Plan.


# FERN RAVINE RESOURCE CONSERVATION AREA 

## PROTECT OUR HEADWATERS

Protecting the headwaters of creeks and rivers is essential to secure ecological processes across watersheds. Designating the Fern Ravine RCA would establish a necessary ecological anchor for the Sausal Creek watershed.


## CONSERVE BIODIVERSITY

Protecting natural core areas and corridors enables wildlife movement and conserves biodiversity.

## SUSTAIN COMMUNITIES

Natural areas contribute to our quality of life, economy, and health, and help define community identity by connecting residents to the natural setting in which they live.


## INCREASE CLIMATE RESILIENCE

Establishing natural areas increases climate resilience to flooding, relieves extreme heat, and reduces drought impacts.

## ENHANCE WATER RESOURCES

Forests, wetlands, and stream corridors work together to keep our water supplies clean and abundant.


## SET PRECEDENT

Designating the Fern Ravine RCA would set the stage for designating RCAs elsewhere in the Park.

## FERN RAVINE RESOURCE CONSERVATION AREA ECOLOGICAL ATTRIBUTES AND FUNCTIONS OF THE FERN RAVINE SUB-BASIN

The Fern Ravine ecosystem plays a critical role in maintaining the health of Sausal Creek. Essential ecosystem functions include the maintenance of water quality, element and compound cycling, organic carbon storage and export, subsurface water storage that reduces downstream flooding, faunal habitat interspersion and connectivity (i.e., corridors), and plant/animal habitat support.

- Fern Ravine supports 110 native vascular plant species and over 100 species of fungus (e.g., mushrooms).
- 60 species of birds and 15 amphibian and reptile species have been documented at Fern Ravine.
- Numerous native mammals use Fern Ravine, notably coyote, bobcat, mountain lion, fox, and the San Francisco dusky-footed woodrat, a state species of special conservation concern.
- Fern Ravine is one of the most biologically rich areas in Joaquin Miller Park, supporting several natural communities including redwood forest, a regionally rare palustrine emergent, shrub-scrub, riparian wetland, mixed hardwood forest, coastal scrub (chaparral), and grassland.
- Fern Ravine Creek and its wetlands maintain the aquatic environment of a regionally significant population of threatened rainbow trout, Oncorhynchus mykiss, which occurs downstream.
- When flows are high enough, Fern Ravine Creek will also transport and deposit vegetative debris, such as tree branches and small logs that wash or fall into the creek from the adjacent redwood forest. Large woody debris can reduce downstream flooding and the discharge of excessive sediment that may smother critical fish spawning and rearing habitats or clog culverts and drains in urbanized settings leading to flooding.
- A vital benefit of Fern Ravine Creek is its capacity to mitigate the effects of flooding by intercepting and storing rainwater. Fern Ravine Creek decreases the volume of floodwater delivered downstream and reduces water velocity due to its rough channel, thereby reducing downstream erosion, sedimentation, and flooding.


Figure 2: A dusky-footed woodrat nest in Fern Ravine - 2023

## FERN RAVINE RESOURCE CONSERVATION AREA



Figure 3 and 4: Denuded Fern Ravine Creek and Redwood Understory -


Figure 5: Revegetating Fern Ravine Redwood Understory - 2022 2010

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