



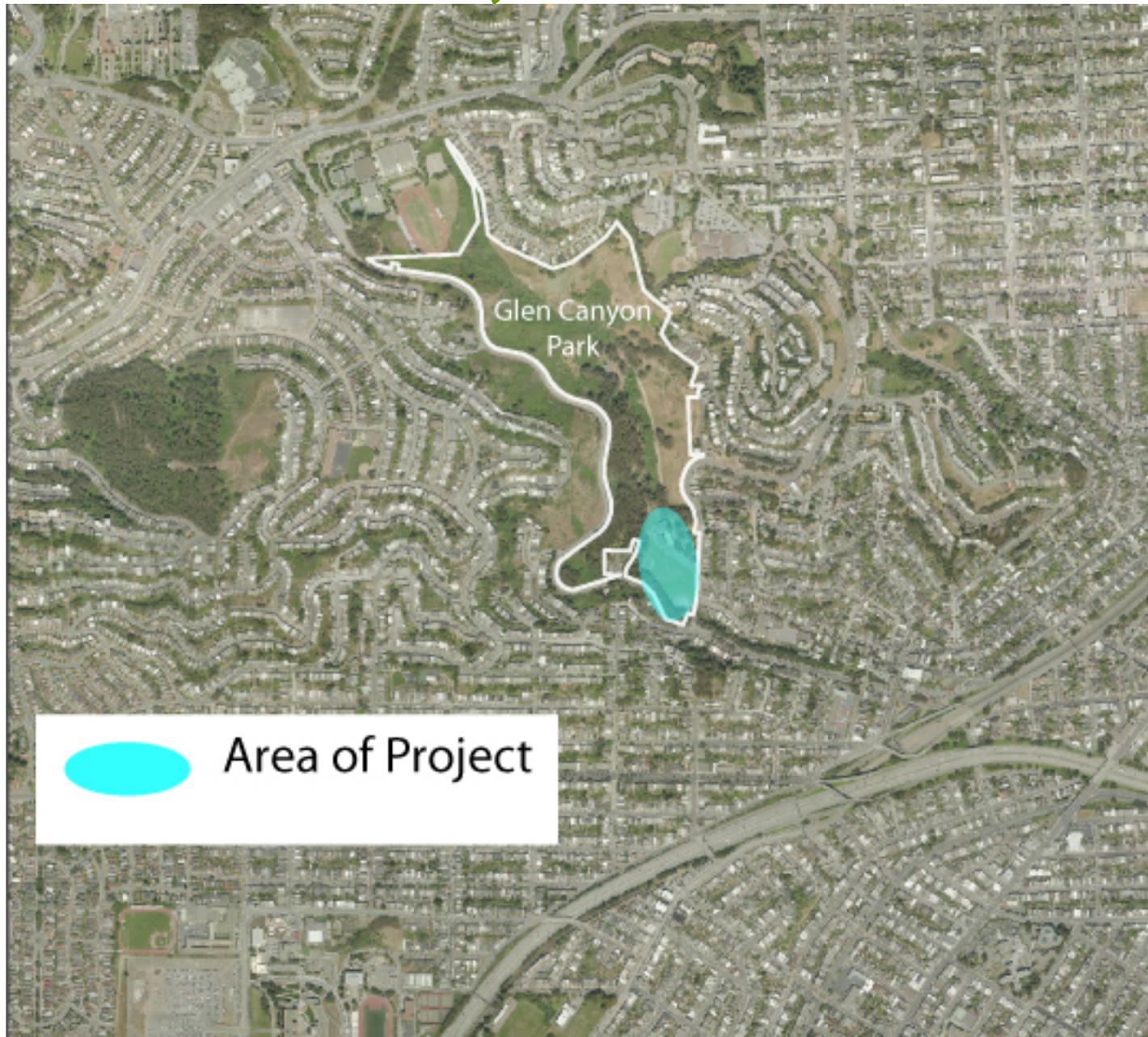
2008 Clean and Safe Neighborhood Parks Bond

# Glen Canyon Park Renovation Project

# Tree Management



# Park Overview, Area of Work





# Funding

- 2008 Clean & Safe Neighborhood Parks Bond, Neighborhood Parks Program, has allocated \$5.8 Million to specified improvements to the lower portion of Glen Canyon Park
- 2012 Bond will allocate \$12 Million to the renovation of the Recreation Center! We look forward to discussing the Recreation Center renovation in the upcoming months.



# Summary Of Planning Process And Work To Date

**2010:** Outreach began, funding by gift from Trust for Public Land

**2011:** Robust outreach process continued, with focus on 2008 Bond Project

**2012:** Detailed design development; continued outreach, public meetings, blog posts, and discussions with local community groups and stakeholders.





# Park Renovation Project





# Glen Canyon Park Tree Management

- The 2008 Bond provides us the opportunity to renovate Glen Canyon Park's recreational facilities and to preserve and perpetuate Glen Canyon Park's forest.
- Our goal is to maintain a healthy forest that will be a safe place for San Franciscans to enjoy in both the short- and the long-term.





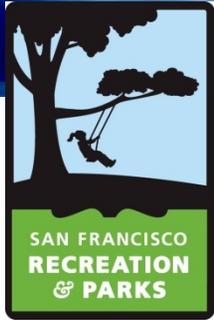
# Managing A Healthy Urban Forest

Healthy urban forests have:

- A diversity of tree species;
- A mix of young and mature trees;
- Healthy trees, that are less susceptible to pests and diseases.

Our goal is to maintain a healthy, sustainable forest, with a diverse mix of trees of different ages and sizes.





# Our Operational Constraints

- It is estimated that Glen Canyon Park has about 6,000 trees.
- Many trees have not received major physical attention in decades.
- A recent report found that, on average, RPD has the funds to do work on each tree only every 50 years.

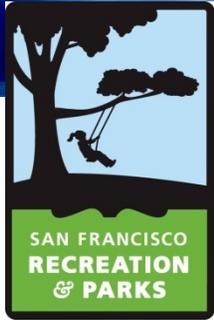




# The Current Condition Of Glen Canyon Park's Forest

- The current forest is **aging**.
- Many tree stands are of a **single age class** – meaning trees reach the end of their life cycle at the same time.
- There is **low species diversity**.
- Many of the trees are in **poor condition** and/or are **structurally unsound**.
- We have had recent **tree failures** in the Park.





# Recent Local Tree Failures: Glen Canyon Park





# Recent Local Tree Failures



Golden Gate Park



Diamond Heights Open Space



# Tree Assessment & Preservation Plan Methodology

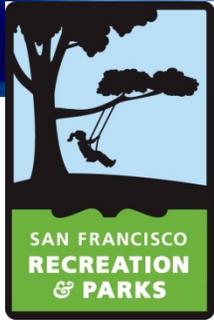
- 627 trees were assessed by an independent arborist in 2011 + 2012.
- 147 of the trees were in the Project area.
- Trees in high use areas—near homes, adjacent to streets, or within and adjacent to the Project area—were assessed.
- Trees were evaluated for their health, structural condition, and likelihood of failure.
- The same methodology was used in 18 other park properties funded by the 2008 Bond.



# The Recommendations And Their Implementation

- The Tree Assessment & Preservation Plan recommends removing 58 trees as a part of the renovation of the facilities around the recreation center.
- 163 new trees will be planted.
- 3,200+ shrubs, 2,800+ perennials, and 800+ grasses will also be planted.

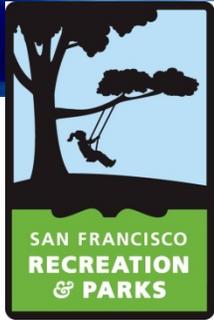




# Why Are Trees Recommended For Removal + Replacement?

- **52** of the trees are recommended for removal because they have poor suitability for preservation or are hazardous.
- **6** of the trees will be removed due to the renovation.





# How Is A Tree's Hazard Rating Determined?

Assessment of tree hazard considers:

- The potential for a tree or one of its parts to fail;
- The size of the part most likely to fail;
- The likelihood that person or object would be injured or damaged should a failure occur.





# How Is A Tree's Suitability For Preservation Determined?

Factors used in determining suitability for preservation:

## Primary Factors

- 1) Tree Health
- 2) Structural Integrity

## Secondary Factors

- 1) Species Response To Construction
- 2) Tree Age & Expected Longevity
- 3) Species Invasiveness



# Characteristics Of Poor Suitability For Preservation

- A tree that is determined to have poor suitability for preservation is in poor health or possesses significant defects in structure that cannot be abated with treatment.
- These trees can be expected to decline regardless of management.

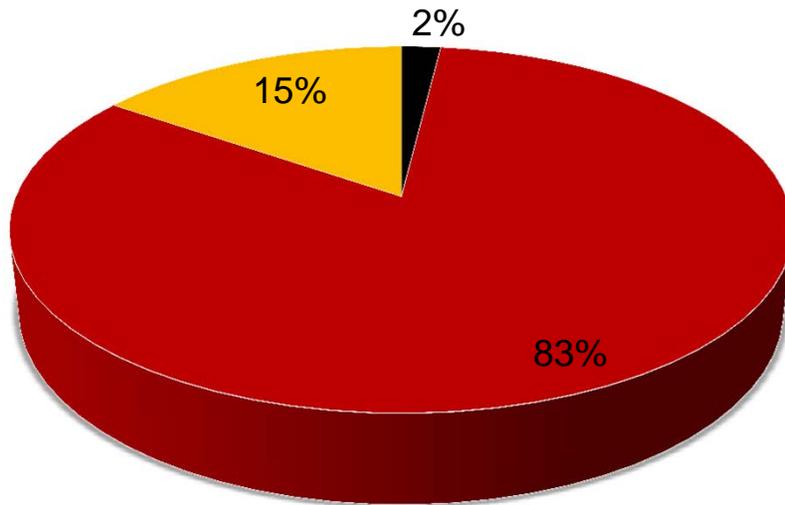




# Overview Of 52 Tree Removals Related To Hazard + Suitability For Preservation

## Condition Rating

■ Dead ■ Poor ■ Fair



## Condition Rating Information

- **DEAD:** No longer alive.
- **POOR:** Declining in health. Small canopy of leaves. Under disease and/or insect attack. Severe defects in structure such as cracks, lean or decay.
- **FAIR:** Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, and moderate structural defects.



# Overview Of 52 Tree Removals Related To Hazard + Suitability For Preservation

- 8 of the trees received a hazard rating of 8 or 9.
- The remainder of the 52 removals were rated 5, 6, or 7.
- All trees were rated on a scale of 3 to 12.

## Hazard Rating System

### Failure Potential

- 1) Low
- 2) Medium
- 3) High
- 4) Severe



### Diameter Of Part Likeliest To Fail

- 1) 6"
- 2) 6-18"
- 3) 18-30"
- 4) 30" +

### Occupancy Of At-Risk Area

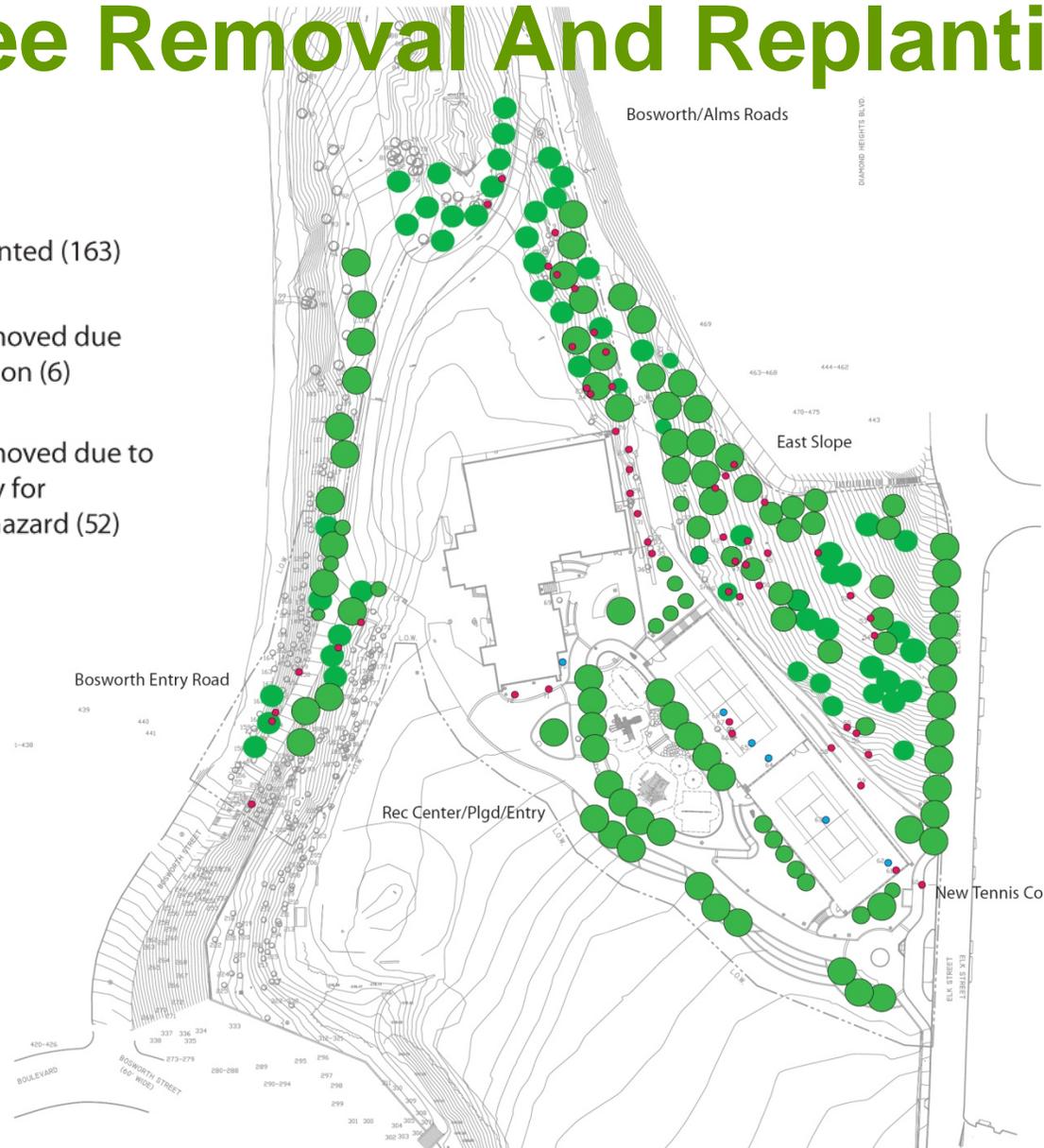
- 1) occasional
- 2) intermittent
- 3) frequent
- 4) constant



# Tree Removal And Replanting Plan

## LEGEND

-  Trees to be planted (163)
-  Trees to be removed due to the renovation (6)
-  Trees to be removed due to poor suitability for preservation/hazard (52)



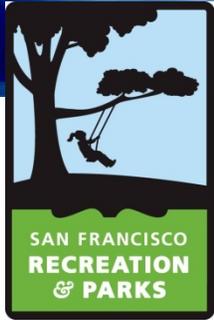


# Tree Planting Plan



## TREE LEGEND

SYMBOL	SCIENTIFIC NAME COMMON NAME	SIZE	QTY	AVERAGE HEIGHT
	SEQUOIA SEMPERVIRENS 'ARTOS BLUE' COAST REDWOOD	24" BOX	13	80'-140'
	PSUEDOTSUGA MENZIESII DOUGLAS FIR	24" BOX	10	80'-140'
	CALOCEDRUS DECURRENS INCENSE CEDAR	24" BOX	10	80'-100'
	ALNUS RUBRA RED ALDER	24" BOX	5	45'-60'
	MAYTENUS BOARIA MAYTEN TREE	24" BOX	14	40'-60'
	ULMUS PARVIFOLIA SEMPERVIRENS EVERGREEN ELMS	24" BOX	12	40'-60'
	TRISTANIA CONFERTA BRISBANE BOX	24" BOX	12	40'-60'
	CORNUS NUTTALLII PACIFIC DOGWOOD	15 GAL	8	20'-40'
	ARBUTUS MENZIESII MADRONE	15 GAL	17	20'-30'
	QUERCUS ACRIFOLIA COAST LIVE OAK	15 GAL	21	20'-30'
	PRUNUS ILICIFOLIA ISLAND CHERRY	15 GAL	12	15'-25'
	HETEROMELES ARBUTIFOLIA TOYON	15 GAL	14	15'-25'
	ARCOSTAPHYLLUS 'DR HURO' COMMON MANZANITA	15 GAL	11	10'-20'
	CERCIS OCCIDENTALIS WESTERN REDBUD	15 GAL	4	10'-20'
		TOTAL	163	



# Examples Of Trees To Be Planted:

## Tall Pyramidal Evergreen Trees



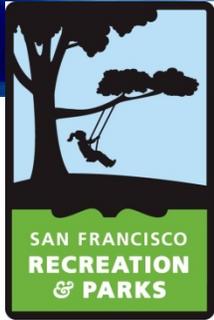
Coast Redwood  
80'-140'



Incense Cedar  
80'-100'



Douglas Fir  
80'-140'



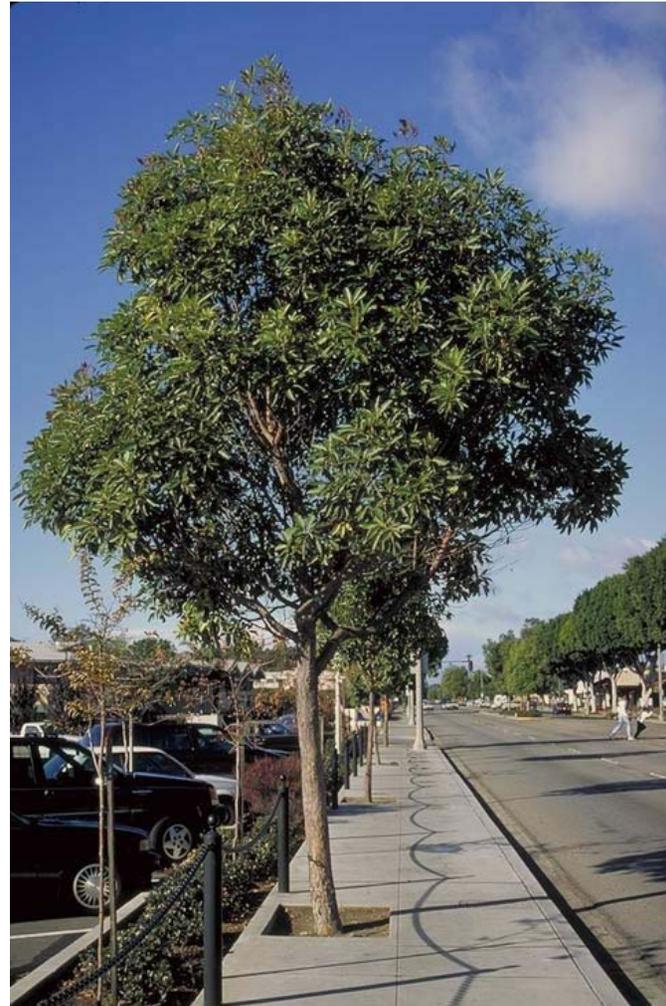
# Examples Of Trees To Be Planted:

## Tall And Broad Evergreen Trees

Mayten  
Tree  
40'-60'



Brisbane  
Box  
40'-60'



Coast  
Live  
Oak  
20'-30'





# Examples Of Trees To Be Planted: Small To Midsize Evergreen + Deciduous Trees



Western Redbud  
10'-20'

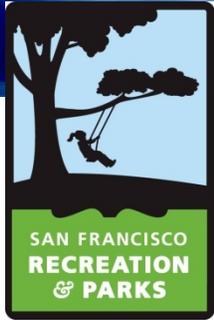


Common  
Manzanita  
10'-20'



Toyon  
15'-25'

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# Example of Reforestation Project: Oak Trees in McLaren Park





# Timeline

- Original Construction Start Date: October 16, 2012
- Construction delayed due to
  - (1) Appeal of building permit;
  - (2) Request for rehearing of appeal of building permit; and
  - (3) Appeal of the CEQA categorical exemption determination
- Anticipated Construction Start Date: January 2013
- Anticipated Construction Completion Date: October 2013

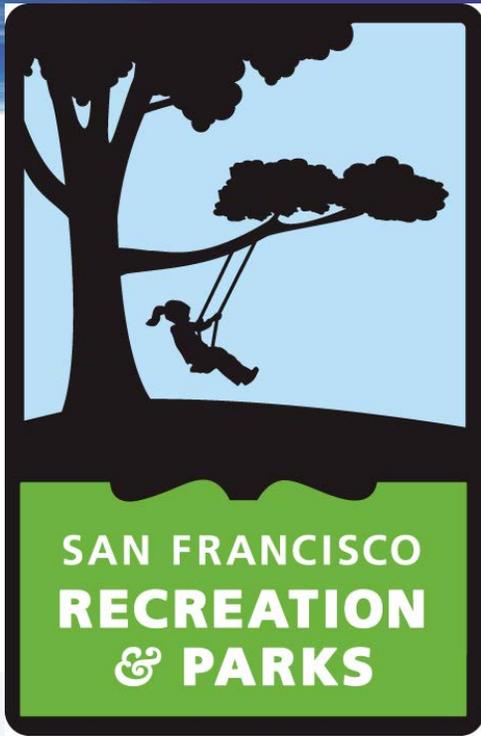


## For More Information

Contact Alex Randolph, Deputy Director of Community and Government Affairs, at [alex.randolph@sfgov.org](mailto:alex.randolph@sfgov.org)

For information about the renovation project, visit:  
<http://sfrecpark.org/project/glen-canyon-park-improvement-plan/>





**Thank you!**



# Height Of New Tree Plantings

Height of Trees	Number of Trees	Percentage of Trees
80'-140+'	33	20%
40'-60'	43	26%
20'-40'	46	28%
10'-25'	41	25%

