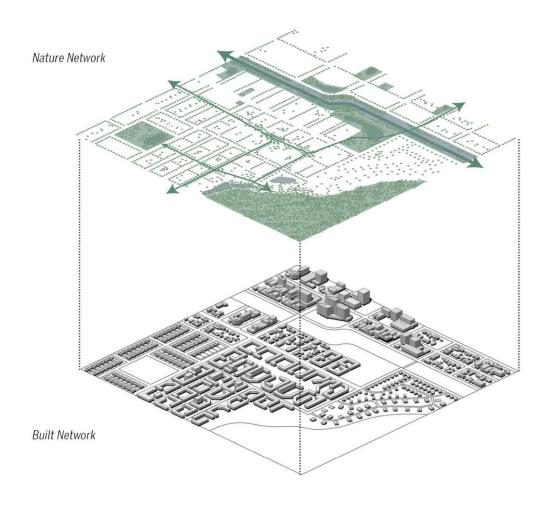
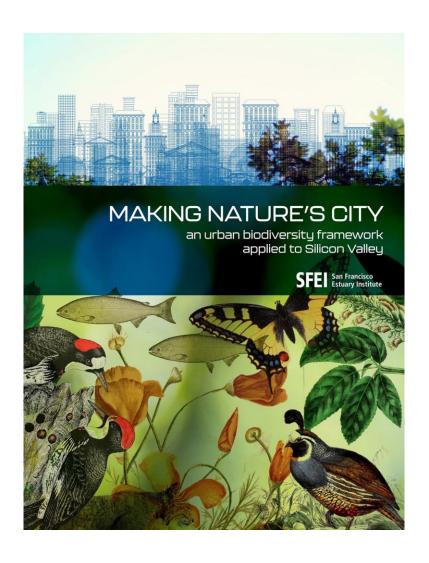


# Multi-benefit Strategy



- Investments in urban greening can help:
  - Support biodiversity
  - Improve human experience and wellbeing
  - Sequester and store carbon
  - 。 Reduce stormwater runoff
  - Mitigate urban heat islands
  - Filter air pollutants
  - And more!

#### Science-based Framework



Making Nature's City:
An Urban Biodiversity
Framework

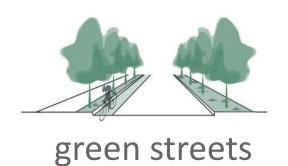
Synthesizes global literature into practical approach

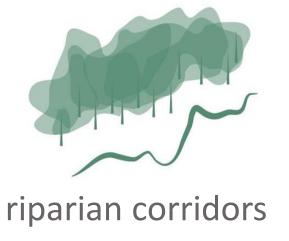
"A landmark report" -- IUCN

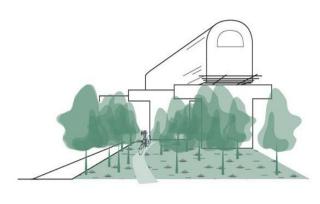
### 1. Patch Size



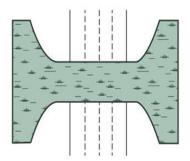
#### 2. Connections







greenways



wildlife crossings

# 3. Matrix Quality

Landscaped areas

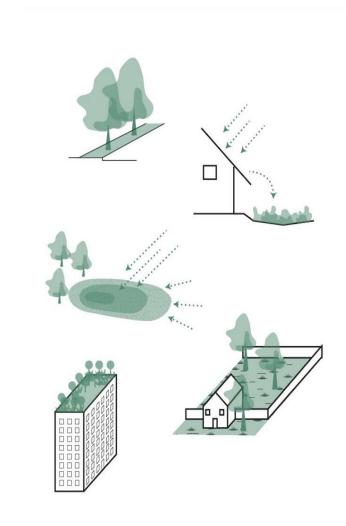
Residential yards

Street trees

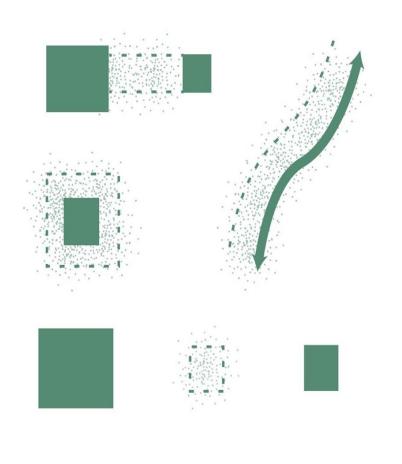
Green roofs

Green infrastructure

Flood detention basins



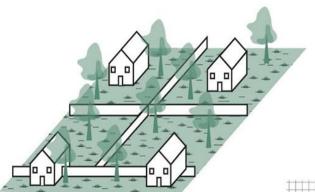
Arrange in relation to patches & corridors



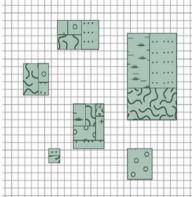
# 4. Habitat Diversity



appropriate habitat type for a place



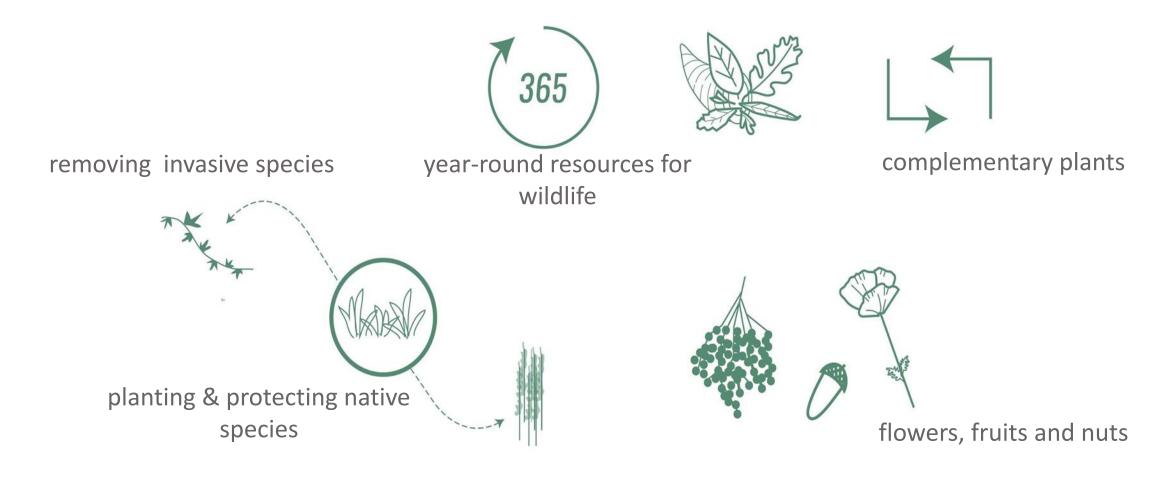
increases coherence @neighborhood scale



creates heterogeneity of habitats across cities

# 5. Native Vegetation

#### diversity and abundance



# 6. Special Resources

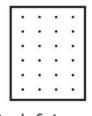


# 7. Management





leaf litter k



bird-friendly windows



nest boxes



light pollution



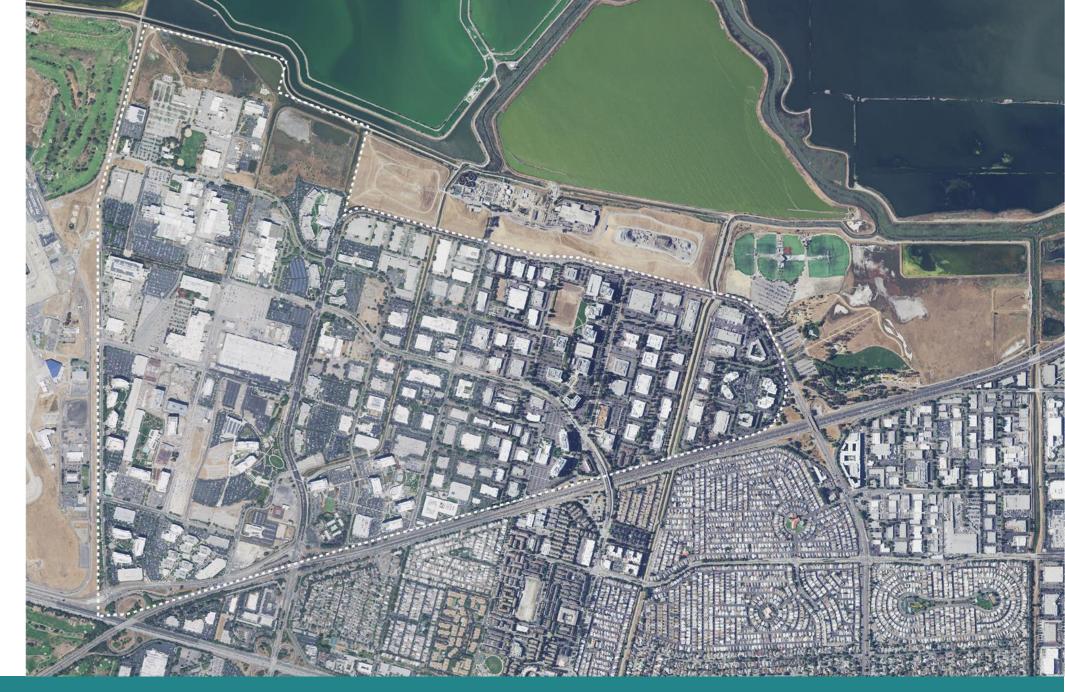
lawns

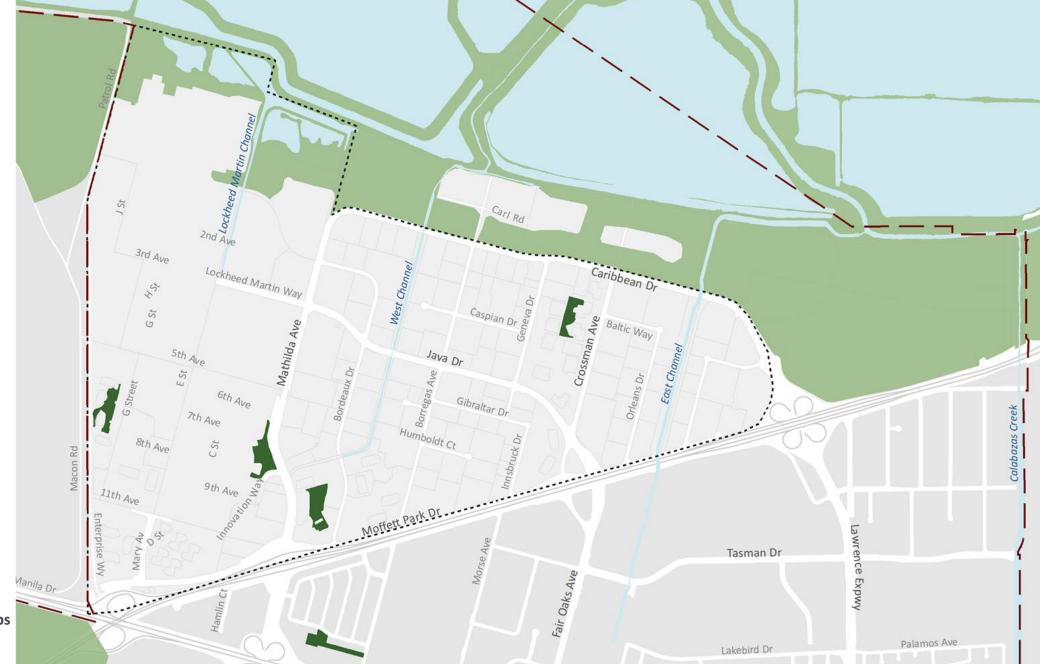


frequent mowing



pesticides and herbicides





#### Patch Size

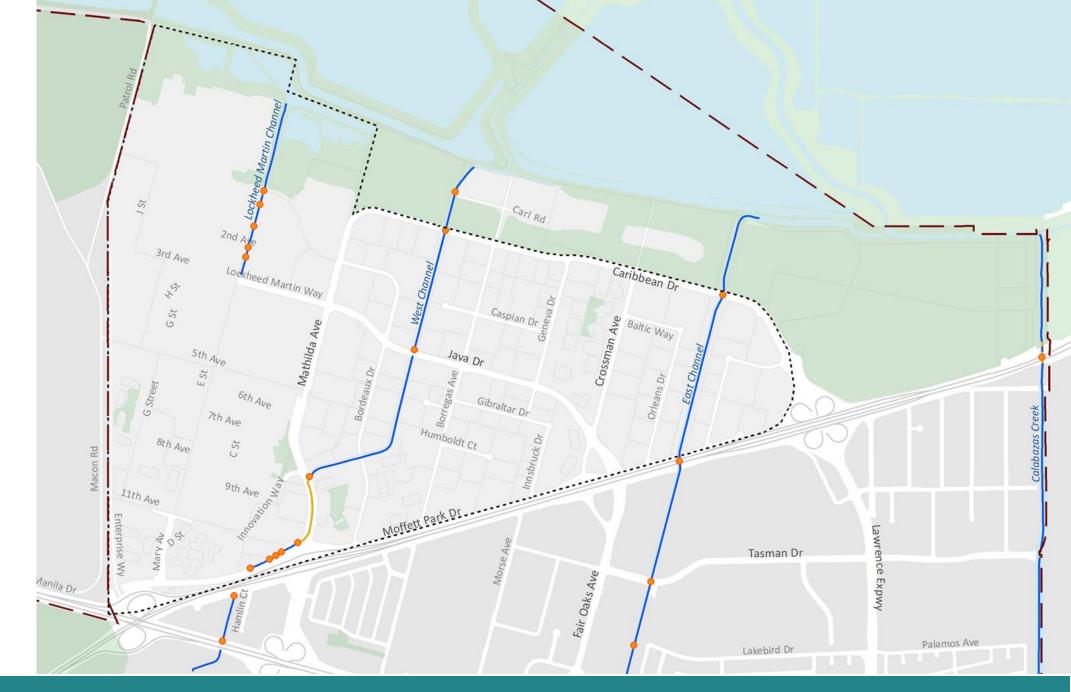
Habitat Patches

(2-10 acres)

Local Biodiversity Hubs

(10-130 acres)

Regional Biodiversity Hubs
(>130 acres)



#### Connections

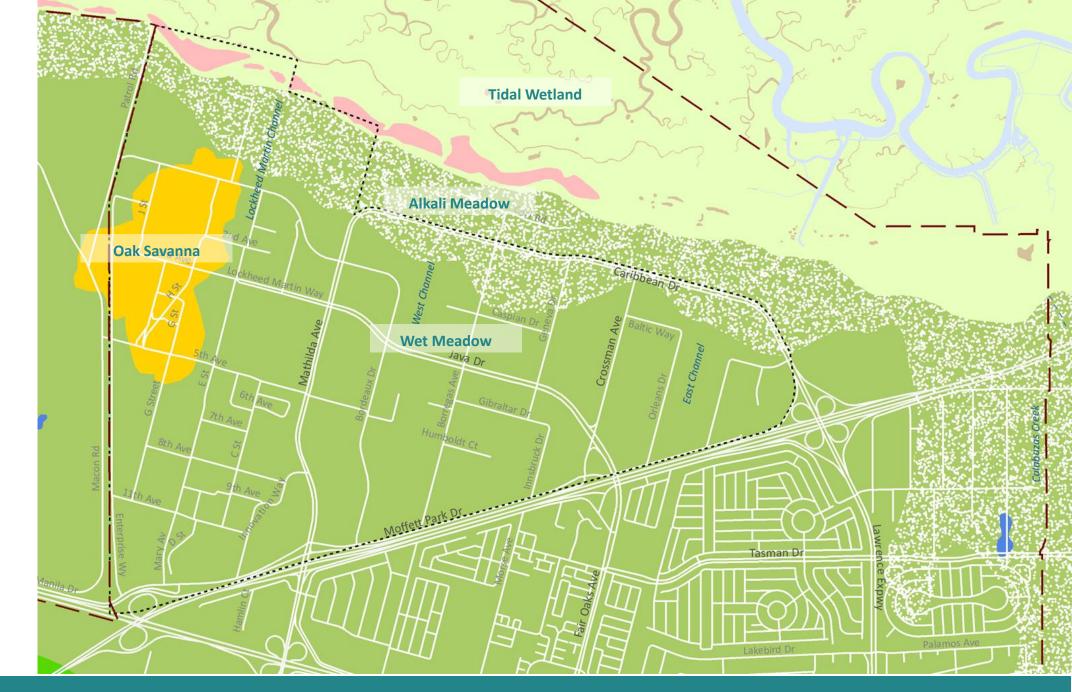
Open Channel

**Culverted Channel** 

Barrier

### Matrix Quality

Tree Canopy

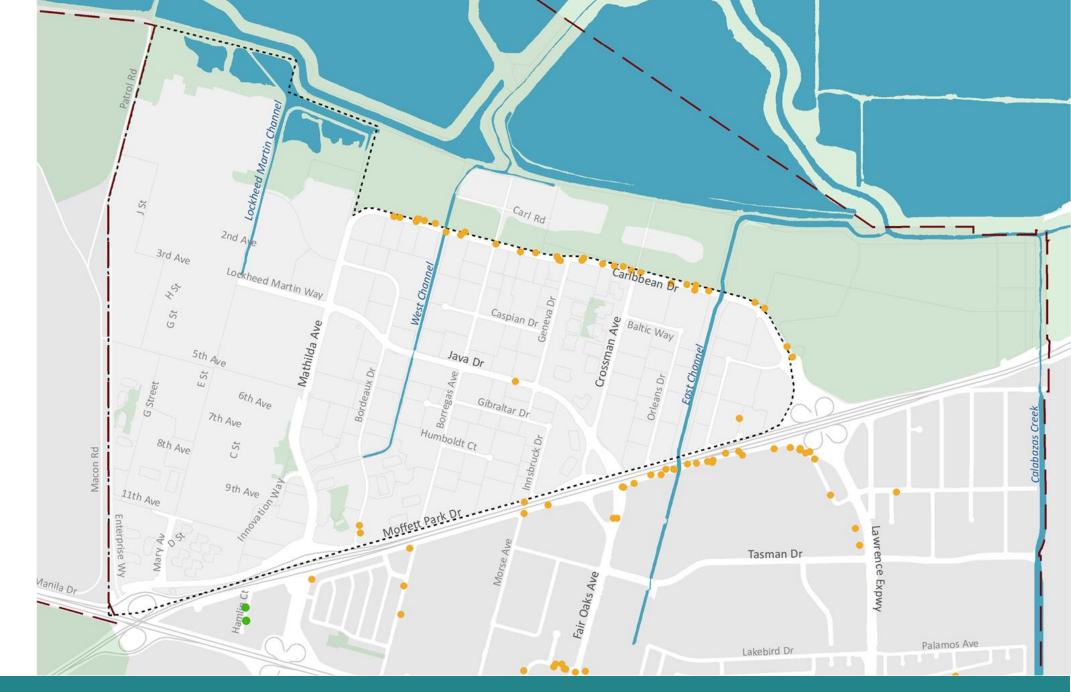


Habitat Diversity



### Habitat Diversity

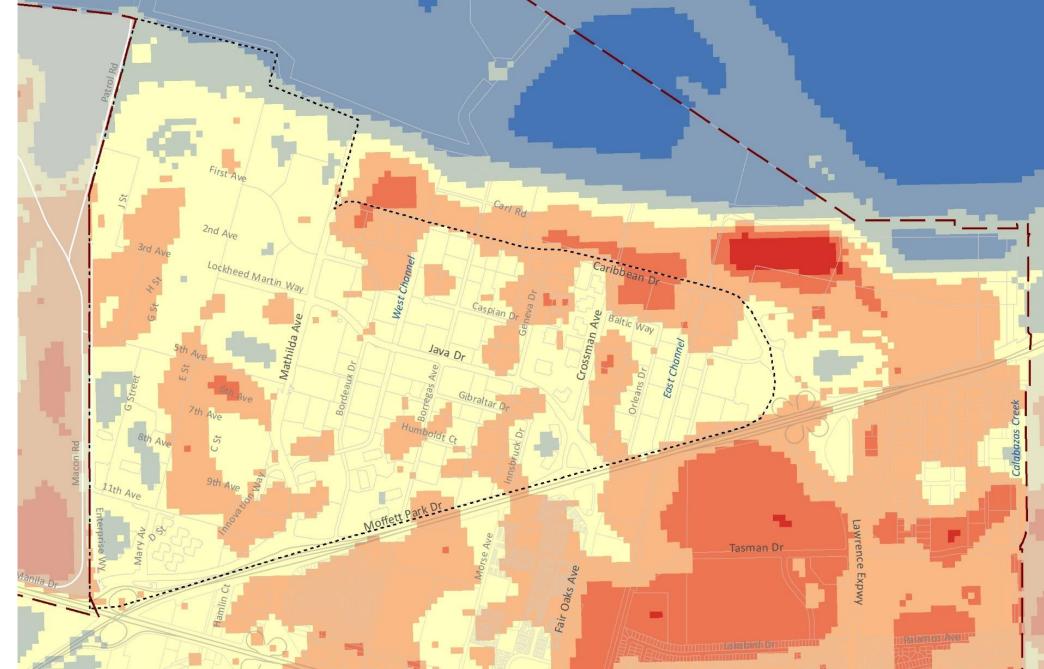
- Native Street Tree
- Non-native Street Tree
- Native Channel Vegetation
- Non-native Channel
  Vegetation



# Special Resources

Large Tree

Water & Wetlands



# Urban Heat Island Effect

Surface Temperature (°F)

73 – 81

81 – 90

90 – 99

99 – 102

102 – 108

**108 – 111** 

111 - 138

# Transitioning to an Ecological Innovation District





- Patches
  - Create new habitat patches and immersive nature experiences
  - Improve ecological value of all open spaces (from civic to natural areas)
  - Increase accessibility

# Transitioning to an Ecological Innovation District





- Connections
  - Create safe and comfortable mobility
     corridors
  - Enhance value of channels
  - Connect Moffett Park to the Baylands

# Transitioning to an Ecological Innovation District





- Matrix Quality
  - Increase canopy cover
  - Plant native Vegetation
  - Integrate stormwater and ecology

# How might the impacts of COVID-19 affect ecology in Moffett Park?

- Greenspaces and corridors more important than ever
- Research shows that parks can improve mental and physical wellbeing and help build social cohesion
- Open space can be flexibly designed to accommodate social distancing now and active programming in the future

