

OPPORTUNITY #1— URBAN FOREST ECOSYSTEM RESTORATION

The goal of this opportunity is to enhance the existing urban forest within the Greater San Pedro Community. This will be achieved by planting new street trees and open space trees, and by facilitating the planting of trees on private property fronting streets with too little public spaces along particular high profile streets. It also includes, addressing sustainability issues presented by existing mature trees within this community. These issues include pruning mature trees, removing dead or dying trees and replacing them with appropriate tree species, fixing broken sidewalks and curbs and gutters associated with mature trees, and expanding tree wells (the grow space around the base of street trees) whenever possible. Normally, these types of actions are the responsibility of the Bureau of Street Services Urban Forestry Division (street trees), and the Dept. of Recreation and Parks (park and open space trees); however, the City has not allocated sufficient funding for these activities for a number of years. Given the prospect of continued budget shortfalls devoted to these activities, it is prudent to consider alternative means for addressing these needs in San Pedro.

Towards that end, the LA Conservation Corps secured grant funding from CALFIRE that will fund the following improvements of the Urban Forest Ecosystem Restoration Project: 1) Placing between 1500-2000 trees in open space, parkway and private property front yards (this includes trees that are “adopted” by property owners (See also Opportunity #8— Private Property Tree Adoption Program);



Photo of broken sidewalk from wrong tree planted in the wrong place. Where possible the broken sidewalk can be cut out and the tree planting area expanded by cutting out additional sidewalk as seen in the next photo

2) installation of Water Conservation Irrigation System at select locations where open space trees are being planted; 3) installation of a Bioswale in partnership with LA Bureau of Sanitation within the Caltrans “Triangle” (See Map on Page 66); 4) installation of Rain Gardens within existing parkways

on qualifying residential streets that will divert, retain and treat storm water runoff; 5) removal of approximately 7500 SF of concrete that will be used for expanded street tree grow space; 6) one time young tree training pruning during Year 2 of the Maintenance Period on the street trees planted as part of this Project;

7) replacement of approximately 37,500 SF of turf with drought tolerant new landscape - this will include both larger



Photo of an expanded tree well that was created by removing broken sidewalk and then cutting out additional sidewalk to expand the tree grow space so roots don't continue to uplift the sidewalk



Photo of existing Caltrans “triangle” property between Summerland Ave., Gaffey Street and the SR 47 offramp - size is approx. 3 acres - which would allow the planting of up to 120 large stature drought tolerant trees at 33 ft. spacing. The primary groundcover should be wood mulch that will help conserve water. Other elements will include a bioswale, and walking/jogging/ exercise path.

scale projects as well as residential lots along priority Residential Green Streets;



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and 8) Placement of mulch for erosion control and to conserve water in select open space and parkway locations.



Photo example of an existing open space area along the Los Angeles River in the Burbank/Glendale area of LA County that has a grove of mature California Sycamore and Coast Live Oak trees - This is an example of what is possible in open space areas in San Pedro with one alteration—installing mulch around the trees in an area that extends to the edge of the canopy of each tree thereby conserving water and providing better soil conditions for optimum root growth

The illustrations on this page show just some of the possible results from high quality open space trees plantings, rain garden and bioswales installations, and conversion of residential front yards from turf to drought tolerant landscapes.



The diagram below illustrates how water flows into and through a bioswale treatment along a Green Street.

Photo to the right shows a before and after view of a front lawn that has been converted into a more water conserving landscape by removing some turf and replacing with mulch



Photo of one example of a Rain Garden where stormwater runoff coming down the street at the curb can be directed into a planting area for use by plants and groundwater recharge



Illustration of a number of different versions of green street treatments. The cutaway shows how water flows into a rain garden and then flows through the rain garden

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These two (2) aerial views show the potential major open space tree planting opportunities in the disadvantaged census tracts of the San Pedro Community:

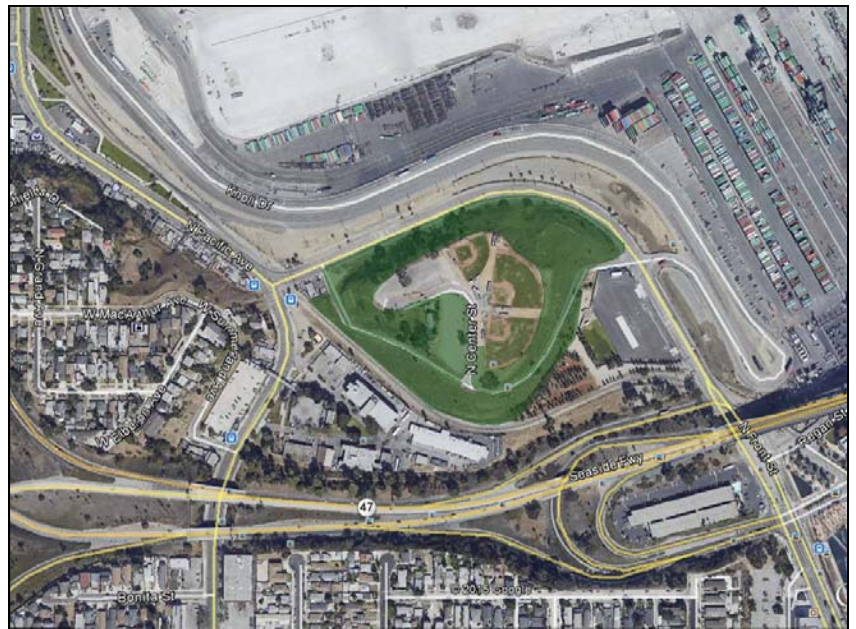


“Smart” irrigation systems control the timing of the watering cycles based on soil moisture content, weather conditions and breaks in the pipes that supply the water to the planting areas. It also means using low flow non-spray (e.g., drip emitters or bubbler heads) or micro-spray sprinkler heads instead of larger spray heads. The control systems can be programmed to irrigate the planting areas for specified lengths of time that can be changed with the seasons, so the water cycle is appropriate for the time of year.

1) Leland Park West; 2) Caltrans “Triangle”; and 3) Knoll Hill. The total estimated tree plantings within each of these areas is as follows:

1. Leland Park West = 100 trees
2. Bandini Canyon = 50 trees
3. Caltrans “Triangle” = 50 trees
4. Knoll Hill Open Space = 150 trees

The remaining trees could be planted in the following areas (the final totals and species composition to be planted will need to be coordinated with the public land property owners): 1) existing medians along Harbor Blvd. and at Gulch Rd. just south of the Plaza Park slope areas also along Harbor Blvd; 2) along open space areas along the west side of Western Ave. between 9th St. and 17th St.; 3) Peck Park; and 4) within other Caltrans properties along the Interstate 110 corridor between Channel St. and Harbor Blvd.



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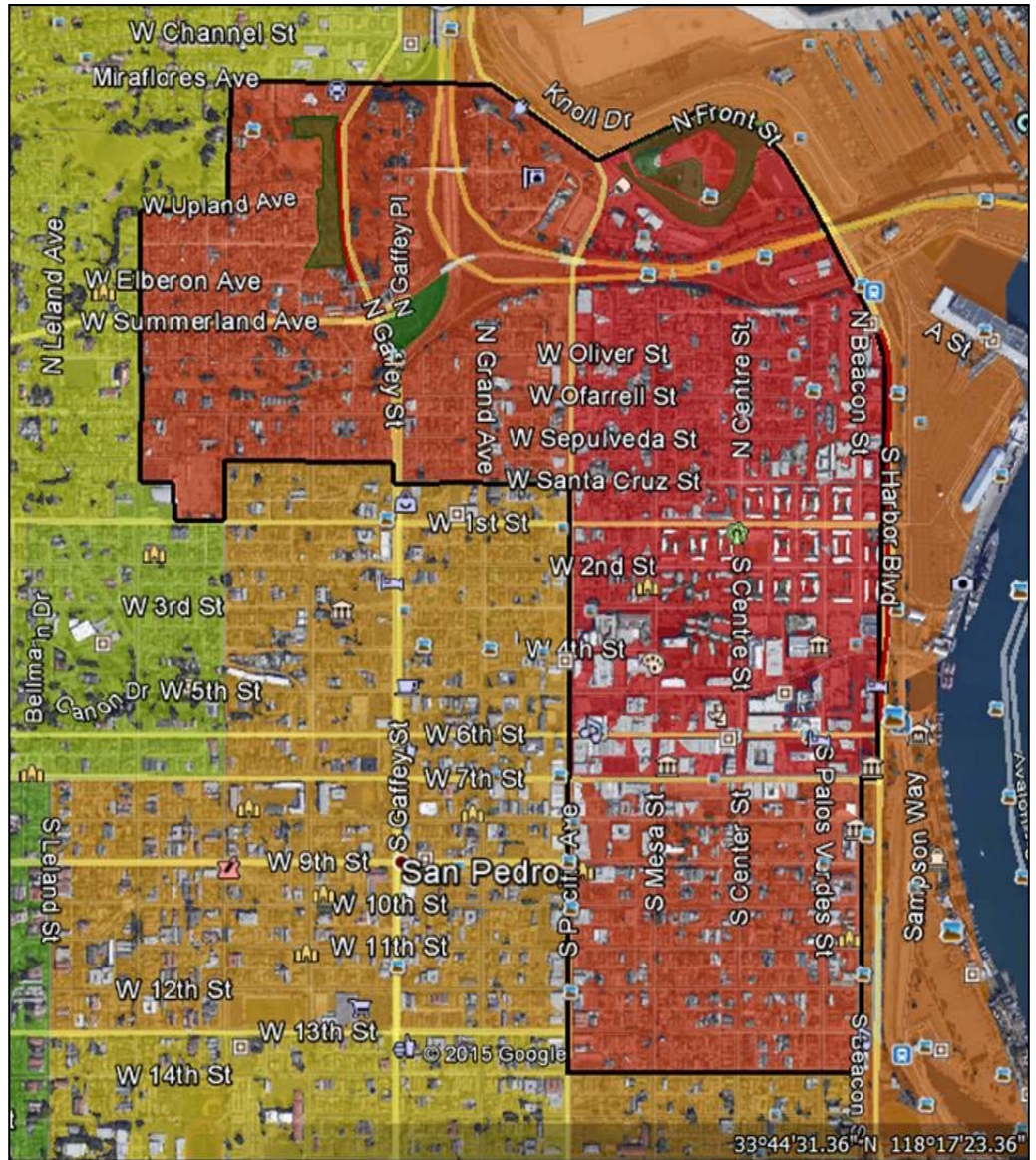
The map on this page (the color coding shows aggregated census tracts boundaries based on percentile levels of “Disadvantaged Community” (DAC)” - the more disadvantaged the darker the shading of red) shows the geographic boundary for this Urban Forest Ecosystem Restoration Opportunity. The area totals 608 acres inside a perimeter that encompasses all of the Downtown San Pedro Area, and continues north to include all of Knoll Hill, the Caltrans open space area known as the Caltrans Triangle, and all of Leland Park. Tree planting can also extend well beyond this boundary to the north, west, and south.

Overall, the Urban Forest Ecosystem Restoration Opportunity will fulfill the following objectives:

- 1) Demonstrate how a “community-based urban greening planning project” can lead directly to the implementation of the priority projects identified by community stakeholders in that planning process—this opportunity was identified and characterized early on in the planning process, and funded prior to completion of this San Pedro Urban Greening Plan;
- 2) Increase the urban forest and the associated ecosystem benefits in the highly disadvantaged neighborhoods of San Pedro (because the majority of the tree planting will be in DAC census tracts);
- 3) Sequester (store) Greenhouse Gas (GHG) and reduce GHG significantly over the next 40 years (by virtue

of the fact that over 10,000 metric tons of carbon dioxide emissions is projected to be sequestered/reduced);

- 4) Promote an ecosystem management approach to urban forestry by demonstrating that by providing more grow space area for large stature trees to grow opti-



mally the urban forest can function as highly productive “Green Infrastructure” (by removing concrete in sidewalks to create that additional grow space, allowing the planting of large stature trees);



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- 5) Advance the practice of urban forestry by showing how performing a “training pruning” on young trees can help optimize the tree’s ability to grow and provide the GHG sequestration and emissions avoidance benefits; and
- 6) Simultaneously achieve GHG, water conservation, water quality, water supply, air quality, public health and beautification benefits that will be well documented and replicable by other communities;

In addition to the aforementioned objectives, the proposed deliverables for this Project will accomplish the following:

- 1) Mitigate the very high levels of air pollutants generated by Port of LA shipping, trucking and rail activities;
- 2) Capture, retain, clean, re-use and re-supply the local water supply that would otherwise flow untreated and wasted to the ocean through traditional storm drains;
- 3) Protect hillside open space areas from erosion and loss of sediment that would otherwise pollute our waterways;
- 4) Provide shade in several of the most Port of LA impacted residential neighborhoods; and
- 5) Beautify several of the “gateways” into the Community of San Pedro

This opportunity will be integrated with the residential “Turf Replacement Program” (See Opportunity #9) and the “Adopt-A-Tree” opportunity (See Opportunity #8). These opportunities apply to all property owners - residential or commercial - as long as the respective Program requirements are met.

PROJECT TIMELINE:

- Funding for this Project was obtained in Fall 2015 by the Los Angeles Conservation Corps = \$1.5 Million
- Outreach activities needed to secure the tree planting sites began in Winter and Spring 2016.
- Concrete removal for planting street trees began in Summer 2016.

- Tree Planting began in late Summer 2016, and will continue through 2018.
- Bioswale grading began late Spring 2017 at the Caltrans Triangle, and construction is expected to be completed in 2018.
- Smart Irrigation installation is expected to begin in 2018 within the Harbor Blvd. Median Turf Replacement & Beautification Project (as a match to that HCBF funded project—SEE OPPORTUNITY #4)
- Rain Gardens planning and design is expected to begin in 2018 with construction to be completed by end of 2019.

