

Project Summary Sheet

Project Name: Fallbrook Creek Restoration Plan Tracking No: 4032

Location: In the hills of north central San Diego County.

Project Sponsor: Mission Resource Conservation District

Point of Contact: Judy Mitchell

Co-applicant(s): N/A

Assembly District: 66 Senate District: 36

Project Description:

The community of Fallbrook is located in the hills of north central San Diego County and is an unincorporated, low-density residential and agricultural community. The project site is located within the urbanized section of Fallbrook Creek near the downtown Village Area. Fallbrook Creek is an intermittent stream within the Santa Margarita Watershed. The 680-acre drainage area to the north of the project site is primarily urbanized and built out. Upstream development will continue to exasperate the existing flood conditions due to the increased impervious surfaces associated with urban development. The specific area of interest is a flood control channel within a four-block section from Fallbrook Street to Elder Street. The total project area is approximately 2.2 acres. At the downstream end of the project site is a severely undersized culvert that results in frequent flooding of the adjacent downtown area. The proposed project will convert a near by burned down citrus packing plant adjacent to the flood control corridor into a dual purpose flow-by detention basin/park that will alleviate much of the existing flood conditions.

The proposed project will build upon a previous grant project that obtained a permit (US Fish and Wildlife Service) for the removal of *Arundo donax* within the channel and to carry out long-term maintenance of the site. In addition to the flood control benefits, the proposed project will restore the riparian and wetland habitat within the channel and incorporate water quality Best Management Practices into the design of the project.

Agricultural Land Conserved: none.

Wildlife Habitat Conserved: 2.2 acres.

Flood Benefits:

At Fallbrook Street, the Fallbrook creek flows underground through a box culvert at the Market Place Shopping Center. The peak discharge of a 100-year storm event is an estimated 1,200 cfs at the Fallbrook Street box culvert. The inlet of the culvert is limited to only 415 cfs, thereby resulting in a severe bottleneck to Fallbrook Creek at the downstream end of the project area. The undersized culvert leads to localized flooding of private properties and public streets during a 2-year storm event or greater. In a 100-year storm event, the estimated peak flow of 1,200 cfs results in a significantly greater flood hazard². Within the 100-year floodplain includes residential homes, offices, churches, shopping centers and public right-of-ways. A school site exists west of the project site and flooding of the area results in safety issues related to children walking home from school during larger rain events.

Upsizing the inlet of the culvert at Fallbrook Street has previously been evaluated. To push 1,200 cfs through the 6 x 8 foot box culvert, 24 feet of head above the top of the culvert is required. This would result in a dam approximately 30 feet above the channel bottom and a dam of this height and capacity is expensive to construct, poses a safety hazard and would be difficult to size into the project area. It is not a cost-effective solution as it would require significant disturbances to the adjacent Market Place Shopping Center and is not consistent with the Flood Protection Corridor Program objectives. Also, the Fallbrook Community does not pay into the San Diego County Flood District and therefore, funding is not available for a flood control improvement project in this area.

The existing flooding issue at the Fallbrook Street culvert has long been recognized as a significant problem for the Fallbrook Community. Over the past 10 years, three main studies have been conducted at the project site in order to identify existing flood control deficiencies and provide alternatives for improving existing flood conditions. Many of these alternatives included upstream detention areas based on available lands. Since these analyses, many of these upstream opportunities have been converted into permanent land uses and are no longer available for detention purposes. At the present time, the acquisition of the identified Citrus Plant for flood control purposes is one of the last remaining opportunities along Fallbrook Creek within the project area. Over time, this remaining parcel is likely to be designated for redevelopment and may conflict with flood protection goals.

Other Benefits:

Improve upon the existing recreational pathway/maintenance access road along the west side of the creek. The flow-by detention basin will be designed as a community park with passive landscaping providing pedestrian access from the street to the corridor and improve upon aesthetic qualities.

A treatment train approach will be instituted for water quality improvements in the channel to treat upstream urban runoff. A fore bay at the upstream channel inlet will be constructed to collect litter, trash and debris.

Wetlands in channel bottom and riparian habitat on bank slope to allow vegetative uptakes for nutrients from urban runoff. A water quality basin at the downstream outlet will be constructed for settling of fine particles, UV disinfecting of bacteria, and bio-chemical uptake of heavy metals. A riparian stream with treatment train components will be able to perform a high efficiency removal of pollutants in urban runoff prior to discharging downstream into Lake O'Neill (Camp Pendleton) and entering the Santa Margarita River.

Total Cost: \$ 4,066,375.

FPCP Cost: \$ 3,313,700

Funding Partners and Share of Cost:

San Diego County - \$50,000, SDC Flood Control District - \$160,000

USDA NRCS - \$167,675

Fallbrook Village Association - \$220,000 (maintenance support)

Fallbrook Revitalization Council - \$150,000