

Attachment 3 Work Plan

Goals and Objectives:

The City's goals and objectives for the project are to improve flood protection and to enhance water conservation and water quality through groundwater recharge.

The project will be designed to provide 100-year flood protection. The existing conditions have created flooding hazards along business and residential developments and, moreover, at public safety facilities. Flood control improvements include construction of a basin at the outlet of an existing concrete lined trapezoidal channel, outlet facilities, and channel improvements along Calimesa Creek between the aforementioned basin and Interstate 10 Freeway. The basin will increase annual recharge by approximately 200 acre-feet.

Conveyance facilities will capture runoff from a tributary area of 890 acres and deliver it to the basin for recharge. During rainfall events, flows will occupy the entire basin volume and will overflow to Calimesa Creek. The creek will be designed to convey 100-year storm runoff of 1,065 cubic feet per second (cfs) safely to downstream facilities. The project will recharge high quality water that will be additionally treated by natural filtration.

Purpose and Need:

The purpose of the project is to improve flood protection, and enhance water conservation and water quality. The need for the project is well documented. Flooding along Calimesa Creek has occurred during moderate flood events. The adjacent public safety fire station has been flooded during such moderate events. Photographs of the resulting cleanup are attached. In addition, FEMA mapping indicates the need for flood protection improvements.

Furthermore, the need for recharge is well documented throughout the Santa Ana Region. Reliance on imported water supplies continues to increase and the proposed project will respond to the need for greater conservation.

Project List:

This is a stand-alone project consisting of basin construction and drainage conveyance facilities. See Attachment 3-2 for a project map. The systems are in the process of being designed. The City received a US EPA grant and matched it with local funds to complete planning, design, environmental compliance, and regulatory permit acquisition for the project. In addition, the project includes construction of recreational and public access facilities (e.g. trails along creek).

Integrated Elements of Project:

As previously mentioned, the project is a stand-alone project and the City is partnering with Riverside County Flood Control, San Bernardino County Flood Control and the City of Yucaipa to construct and maintain the improvements. The project will provide regional benefits by enhancing recharge in the Yucaipa Basin for the benefit of all water producers.

Regional Map:

A regional map is enclosed as Attachment 3-1. Regional and local facilities are presented. The project will provide 100-year flood protection to the downtown civic center, business and residential areas. The basin site and channel improvements are shown on Attachment 3-2.

Completed Work:

The City has obtained grant amounts from US EPA and has commenced preliminary engineering for design of the proposed improvements.

Existing Data and Studies:

Hydrology and hydraulics for the drainage tributary has already been completed. Additional precise project hydraulics will be prepared while considering various design alternatives. Additionally, the Calimesa Creek Master Plan has been completed and is included electronically with other supporting documents.

Project Map:

A project location map is enclosed as Attachment 3-2.

Project Specifics:

As shown on Attachment 3-2, the project is located outside the Central Sacramento – San Joaquin Valley. It is located in the City of Calimesa overlying the Yucaipa Groundwater Basin. The proposed drainage system will outlet into the facilities operating and maintained by Caltrans that conveys these flows through a natural drainage course, draining to the San Timoteo Canyon Creek and ultimately the Santa Ana River. There isn't any O&M liability associated with the Sacramento River or San Joaquin River Flood Control System.

The project includes:

- a. Tributary area of 890 acres
- b. Drainage improvements along Calimesa Creek between 5th Street and Interstate 10 Freeway.
- c. Total Calimesa Creek improvement length of approximately 1,730 linear feet.

- d. Proposed basin will be approximately 19 acre-feet for flood protection and aquifer recharge.

Project Timing and Phasing:

The project is a standalone project and does not include any phasing. The project will tie into existing flood control systems and will be fully functional as intended upon its completion.

Work Plan Outline:

Budget Category (a): Direct Project Administrative Costs

Task 1 Project Administration

The City, assisted by professional consultants, will administer the project. Project administration will include project management and coordination. Administration includes execution of agreements with consultants and contractors at various stages related to the project. In addition, administration will include processing of invoices with consultants and contractors as well as State invoicing. Deliverables include invoices, supporting documents (e.g. consultant invoices, contractor payment requests, etc.) and other documents as required by DWR.

Task 2 Labor Compliance

The City will retain labor compliance assistance from a local firm to verify Davis-Bacon prevailing wage requirements. A payroll summary report will be prepared and submitted to the State.

Task 3 Reporting

The City will prepare all required quarterly, annual and final reports in accordance with grant agreement specifications. All reports will be delivered to the State.

Budget Category (b): Land Purchase/Easement

The City will acquire the parcel adjacent to the Calimesa Channel outlet to allow for construction of the basin. The parcel is located at 13736 5th Street, Yucaipa, California 92399, Assessor Parcel Number 0318-233-05-0000. Once the City has completed preliminary design and the property appraisal process, they will begin negotiating a cost with the property owner and submit an offer for acquisition.

All appraisal and related acquisition documents will be provided to the State as required.

Budget Category (c): Planning/Design/Engineering/ Environmental Documentation

Task 4 Assessment and Evaluation

The City has already completed the Calimesa Creek Master Plan for the improvements and concluded that the proposed project will provide flooding protection and enhance recharge and water quality to the groundwater aquifer in addition to the recreational project benefits. Additionally, hydrology and hydraulic analyses have been completed for the drainage systems to confirm flood control volume requirements, inlet and outlet structure capacity requirements, and storm routing conditions. The Calimesa Creek Master Plan is included in this attachment. A final technical study will be provided to the State for review.

Task 5 Project Design and Engineering

The City will prepare contract documents for construction. The contract documents will include drawings, specifications and estimates for construction of the basin and drainage systems. To prepare the documents, a series of steps will be performed as follows:

Subtask 5.1 Initial 'Kick Off' Meeting

The City will initiate a project kick off meeting with Engineering Consultant and Stake Holders (City of Yucaipa and San Bernardino and Riverside County Flood Control Districts) to discuss project parameters, review project obligations, and to discuss all project requirements in detail including objectives, schedule, preliminary design, strategies, and budget constraints.

Subtask 5.2 Records Research

The City will thoroughly research existing survey and utility records and acquire copies of all available records. The purpose of the records research is to assemble survey and utility records to establish locations of street centerlines, street rights-of-way, and easements and determine locations of all existing utilities and improvements.

Subtask 5.3 Design Surveying

The City will perform a site survey to verify boundary limits and critical topographic features on the site. Survey data will be added to the base construction drawings to complement the topography furnished by the City. We will conduct a conventional design survey of the project area due to the level of detail needed for precise grading design.

Subtask 5.4 Base Construction Drawings

The City will prepare the base construction drawings on 24" by 36" sheets with the City's standard title block using AutoCAD 2010 software, at a drawing scale of 1"=40'. We will add the sheet north arrow, graphic scale, existing improvements and utilities (based on both assembled records and field data), and all survey information to the base construction drawings.

Subtask 5.5 Preliminary Engineering

The City will review available records to determine tributary drainage areas and flow quantities - site inflow conditions will be determined. We will also develop design alternatives for consideration considering factors such as land acquisition, environmental impacts, permitting requirements, channel stabilization both up and down stream, recreational uses, flood control, recharge, and facility sizing. Construction cost estimates and benefit cost analysis will be prepared for each alternative. We will also develop preliminary designs for trail and related facilities for cost estimating and discussions at our public meetings.

Subtask 5.6 Geotechnical Investigation

The City will provide geotechnical evaluations and recommendations of grading, earthwork, trench compaction and other geotechnical considerations for the project. Data compilation and geotechnical analysis of existing geotechnical maps, reports, and field and laboratory data will be assembled to provide recommendations for site design. We will prepare a report presenting the findings, conclusions and recommendations pertaining to design, compaction requirements, slope stability, and grading.

Subtask 5.7 1st Public Meeting/City Council

A public meeting will be scheduled to present the plan alternative, discuss the pros and cons of each alternative and finally discuss the benefit cost analyses and recommended alternative.

Subtask 5.8 Right-of-Way Engineering

The City will prepare a right-of-way mapping exhibit that will show all information along Calimesa Creek. The exhibit will specify all right-of-way needs for the project including any required slope or temporary construction easements. We will include all required legal descriptions and related plats preparation, land appraisals, title documentation, and coordination with property owners.

Subtask 5.9 60% Design

60% Design will begin upon selection of the alternative and will include preparation of preliminary construction drawings, preliminary technical specifications, storm water pollution prevention plan, preliminary construction estimates, completed geotechnical report, and completed environmental compliance documents and approvals, which will be submitted for consideration to the State.

Subtask 5.10 Coordination with Agencies/Utilities

The City will provide drawings to agencies having facilities in the project requesting that they verify their facilities are shown correctly and that they furnish any construction requirements they desire.

Subtask 5.11 95% Design

95% design will include incorporation of comments received from the State and any stakeholders for final design, final trail and landscape improvements design, and final construction specifications and estimates. The plans will again be submitted to the State for consideration.

Subtask 5.12 2nd Public Meeting

The City will coordinate a second public meeting to present the project in the further advanced stage. We will present the plan and will document all public comments for distribution.

Subtask 5.13 100% Design

100% design will include incorporation of the State's and public's final comments for final plans, specifications, and estimates. Final documents will include Mylar and hard copy specifications with signatures and electronic copies of final documents. 100% Design will be submitted with a project summary memorandum together with an updated project schedule, additional regulatory permitting summary, and internal plan review documentation.

Task 6 Environmental Documentation

Since the City has received federal funding, both the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) must be completed and will be accomplished using currently funding sources. The City will first complete the initial study check list to determine significance of potential environmental impact that the project may create. Upon completion of the check list, a determination will be made by City planning staff that will either result in a negative declaration, a mitigated negative declaration, or completion of an environmental impact report (EIR). Whichever process is required, the City will

endeavor to complete it and have its compliance documentation approved and adopted by the City's council. Final CEQA/NEPA documents will be delivered to the State.

Task 7 Permitting

Permits anticipated for project include right-of-way encroachment permits from the City, City of Yucaipa, the Counties of San Bernardino and Riverside, Regional Water Quality Control Board, US Army Corps of Engineers, and State Fish and Wildlife. In addition, the project will require NPDES compliance processing. Upon acquisition of permits, copies will be submitted to the State.

Budget Category (d): Construction/Implementation

Task 8 Construction Contracting

As required by State law, the City will publically bid the project including advertising it in the local publications as well as the Green Sheet. Proof of advertisement will be provided to the State. In addition, the City will hold a pre-bid conference for all contractors interested in bidding the project and respond to all inquiries in written format. The City will open bids at a selected time and will determine the responsible lowest bidder. Staff will recommend to the City's Council award of the project to lowest bidder. Upon award, staff will advise the contractor of award and request contract execution. Upon completion of the contract execution, the City will request that the contractor perform all activities in accordance with the contract documents. They include submittal review, preconstruction conference attendance, etc. All activities will be documented and copies will be submitted to the State.

Task 9 Construction

The selected contractor will perform all work on the project as follows:

Subtask 9.1 Mobilization and Site Preparation

Mobilization and site preparation include mobilizing grading equipment and site clearing of vegetation and debris for off-site disposal.

Subtask 9.2 Drainage Conveyance Facilities

Construction of the Calimesa Creek facilities includes trenching, shoring, installing approximately 1,730 linear feet of drainage conveyance channel and related structures including inlet connections, bedding, backfill and compaction and all related work.

Subtask 9.3 Basin Earthwork

Construction of the basin begins with excavation of approximately 30,500 cubic-yards including precise grading, processing, and compacting, and disposing of materials at the basin site and all related work.

Subtask 9.4 Basin Monitoring Systems

Construction of the basin monitoring systems will include installation of water level elevation meters and groundwater quality meters (lysimeter) and all related work.

Subtask 9.5 Recreational Trail Improvements

Construction of multipurpose trail improvements will include trails, seating areas, trail signage, native landscaping and viewing areas to facilitate incorporation to a regional system.

Subtask 9.6 Performance Testing and Demobilization

The drainage systems and the basin will be visually inspected to verify contract compliance. All cast in-place concrete structures will include concrete cylinder testing to verify compliance with performance specifications.

Demobilization includes removal of all equipment used for construction, surplus project materials, spoils, and construction debris. All conveyance sites will be required to be returned to preconstruction conditions.

Budget Category (e): Environmental Compliance/Mitigation/Enhancement

Task 10 Environmental Compliance/Mitigation/Enhancement

Environmental mitigation requirements will be determined during Task 6. All Environmental Compliance/Mitigation/ Enhancement will be completed in compliance with the findings and/or Mitigation Monitoring Program. The City will ensure that construction will be completed in accordance with the approved mitigation requirements. The environmental compliance report will be submitted to the State for review.

Budget Category (f): Construction Administration

Task 11 Construction Administration

The City will perform all construction administration duties to verify that construction is being completed in accordance with the contract documents.

Administration includes management, construction staking, geotechnical engineering, environmental compliance testing, and inspection.

We will manage project delivery, including biweekly meetings with staff to ensure critical decisions are presented to the City for direction at appropriate times, meetings and communications with the project team, field reviews of the site at various stages of design, leading public meetings, meeting with regulatory agencies, and regular review of project schedule and budget.

Budget Category (g): Other Costs

Not a part of this work plan

Budget Category (h): Construction/Implementation Contingency

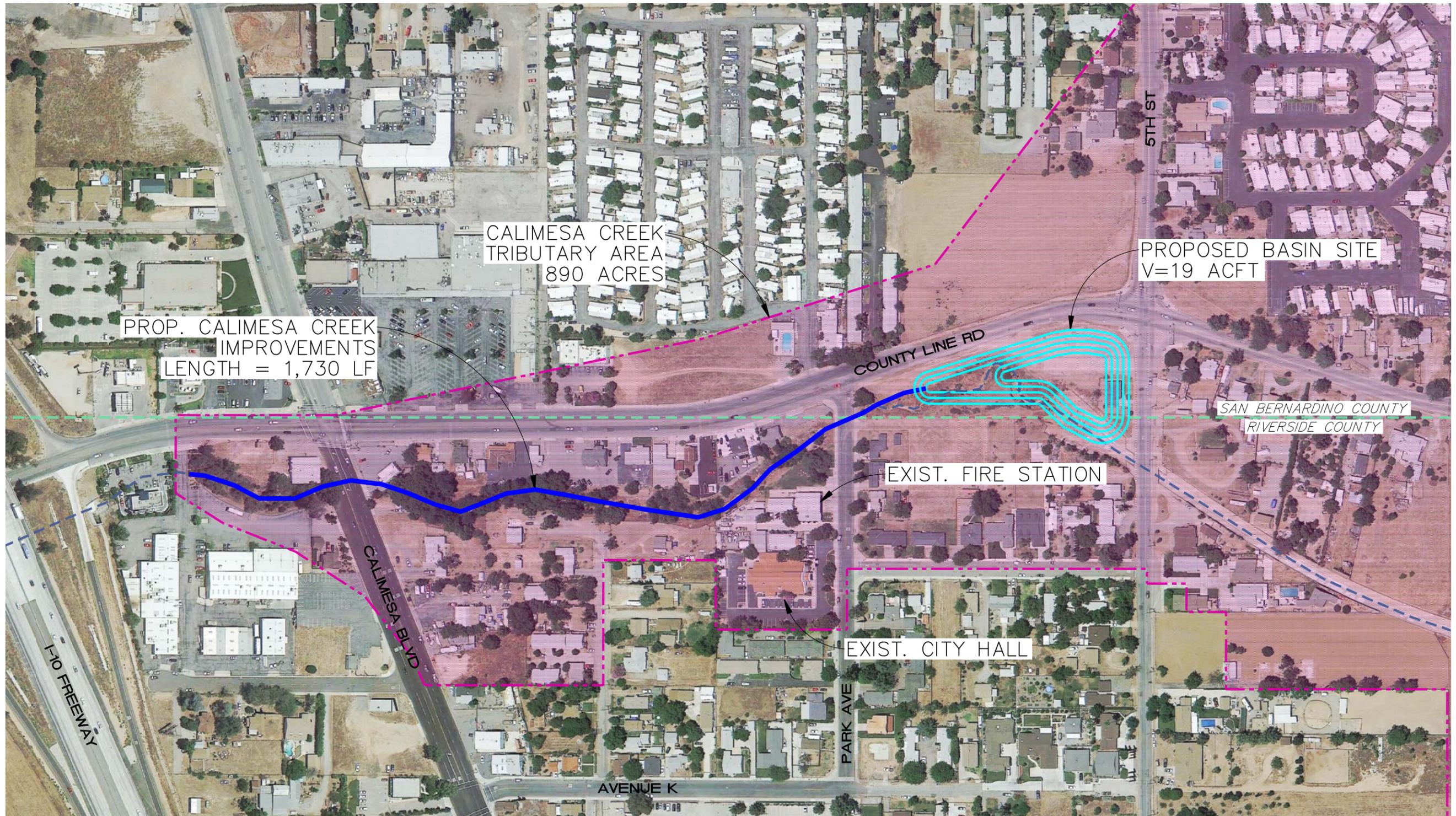
A construction/implementation contingency of approximately \$220,000 is estimated for this Project. The City is aware that they must spend the entire amount so as not fall below their match funding requirement.



S:\CADD\133-02 Calimesa Creek\Att 3-1_Regional Map.dwg

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CITY OF CALIMESA
 ATTACHMENT 3-1
 REGIONAL MAP



- LEGEND:**
- EXIST. STORM CHANNEL/CREEK
 - - - - CALIMESA CREEK TRIBUTARY AREA
 - PROP. CREEK IMPROVEMENTS
 - PROP. BASIN



S:\CADD\133-02 Calimesa Creek\Att 3-2_Project Map.dwg

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CITY OF CALIMESA
 ATTACHMENT 3-2
 PROJECT MAP