

## **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 is designed to provide 100-year flood protection. The existing regional basin facilities, known as the Ely Basins, are ideal for additional excavation for aquifer recharge given their large surface area, relatively shallow existing depth (30 feet), and existence of adequate inlet and outlet facilities. The volume of the existing Ely Basins will be increased by 310 acre-feet to effectively recharge greater quantities of runoff during storm events.

Conveyance facilities will capture runoff from a tributary area of 956 acres and deliver it to the basins for recharge. The project will recharge quality water that will be additionally treated by natural filtration.

### **Purpose and Need:**

The purpose of the project is to improve flood protection, enhance water conservation and improve water quality. The need for the project is well documented. Flooding along Francis Street occurs during moderate flood events. Automobiles have been photographed in flood waters greater than 2 feet in depth. These conditions create a risk to public safety. Furthermore, rather than continuing to allow this valuable water resource to be lost to the Chino Basin, the City has incorporated improvements to the Ely Basins to conserve these resources for the benefit of the region. The Facilities will capture and convey runoff currently to the existing basins, wherein this flow will be recharged, assisting with regional water management. Additionally, the project will prevent impacts to business and residential areas.

### **Project List:**

This is a stand-alone project consisting of drainage conveyance facilities and expansion of existing basin facilities. See Attachment 3-2 for a project map. The storm drain conveyance system has 90% design completed and preliminary engineering has been completed for the basin expansion.

### **Integrated Elements of Project:**

As previously mentioned, the project is a stand-alone project and the City is partnering with Inland Empire Utilities Agency (IEUA) and the San Bernardino

County Flood Control District (SBCFCD) to construct and maintain the improvements. The project will provide regional benefits by enhancing recharge in the Chino Basin for the benefit of all water producers. The project is included within Chino Basin Water Master's Recharge Master Plan.

### **Regional Map:**

A regional map is enclosed as Attachment 3-1. The Project will provide 100-year flood protection to communities northwest and west of the basin site. The basin site is located along the West Cucamonga Creek as shown on the referenced attachment.

### **Completed Work:**

The City has completed preliminary engineering of the basin site to verify that the site will meet project objectives. In addition, the City has completed the hydrology and hydraulics report and 90% design of the storm drain conveyance facilities.

### **Existing Data and Studies:**

As mentioned above, the City has completed the hydrology and hydraulics report a report and 90% design of the storm drain conveyance facilities, which can be submitted to the State upon request.

### **Project Map:**

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

### **Project Specifics:**

As shown on Attachment 3-1, the project is located outside the Central Sacramento – San Joaquin Valley in the central portion of the City of Ontario overlying the Chino Groundwater Basin. The proposed storm drain will outlet into the West Cucamonga Creek Channel which conveys storm water through the Ely Basins into the Cucamonga Creek Channel. 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 956 acres
- b. Storm drain improvements along Francis Street from Campus Avenue to the West Cucamonga Creek.

- c. Total pipeline length of approximately 8,500 linear feet with diameters ranging from 18" to 132".
- d. Existing Ely Basins will be expanded by approximately 310 acre-feet for additional aquifer recharge.

### **Project Timing and Phasing:**

The project is a standalone project and does not include any phasing. The project will tie into existing regional 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 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 payments, 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**

Not Applicable.

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

### **Task 4 Assessment and Evaluation**

The City has already completed a preliminary evaluation of the existing Ely Basins and found them to be sufficient for expansion needed for additional recharge volume. Additionally, the City has completed precise hydrology and hydraulic analysis for the storm drain system to confirm flood control volume requirements, inlet and outlet structure capacity requirements, and storm routing conditions. The 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 City has already completed 90% design of the storm drain facilities; however final design, specifications, and estimates are still needed. The contract documents will include drawings, specifications and estimates for construction of the basin and related drainage system. To prepare the documents, a series of steps will be performed as follows:

- a. **Records Research** - the City will research utility and survey records for the basin site. This task is already complete for the conveyance alignment.
- b. **Design Surveys** - the City will collect field topographic data for the basin site. This task is already complete for the conveyance alignment.
- c. **Base Construction Drawings** - using the data assembled during records research and field surveys, base construction drawings will be prepared for the basin. Base construction drawings for the storm drain are already complete.
- d. **Preliminary Design** - using the base drawings, preliminary design for the basin. It will include expansion grading of the basin and structure design. The design will be consistent with technical study requirements presented above.
- e. **Coordination with Agencies** - after the preliminary design is complete, the City will provide drawings to agencies that have an interest in the project and agencies that will be impacted by construction. We will request that they verify that existing facilities are mapped correctly.
- f. **Geotechnical Investigation** - site conditions at the basin site will be performed to assess site conditions and to present construction requirements including material suitability, gradations and processing, compaction, percolation, and other requirements.
- g. **90% Design** - 90% contract documents (plans, specifications, and estimates) for the basin, in addition to the already completed storm drain contract documents, will be submitted for consideration to the State.

- h. **Final Design** - final contract documents (plans, specifications, and estimates) will be completed and submitted for consideration to the State.

## **Task 6 Environmental Documentation**

Public works projects are subject to environmental compliance processing in accordance with California Environmental Quality Act (CEQA). 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, a determination will be made by City planning staff that will either result in a negative declaration, a mitigated negative declaration, or a comprehensive 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 documents will be delivered to the State.

In addition to CEQA, the project will be subject to environment assessment related to expansion of the basin site. The report will be submitted to the State and to the Regional Water Quality Control Board to permit recharge into the basins; see Task 10 for further information.

## **Task 7 Permitting**

Permits anticipated for project include right-of-way encroachment permits from the City, the County of San Bernardino, and a Regional Water Quality Control Board Permit. 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 state authorization, staff will advise the contractor of award and request contract execution. Upon completion of the contract execution, the City will verify that the contractor perform all activities in accordance with the contract documents. They include submittal review, preconstruction conference attendance, and construction progress meetings. 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 and trenching equipment and site clearing of vegetation and debris for off-site disposal.

### ***Subtask 9.2 Storm Water Conveyance Facilities***

Construction of the storm water facilities includes trenching, shoring, installing approximately 8,500 linear feet of storm conveyance channel and related structures including inlet connections, manholes, bedding, backfill and compaction and all related work.

### ***Subtask 9.3 Basin Earthwork***

Construction of the basin begins with excavation of approximately 500,000 cubic-yards including precise grading, 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 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**

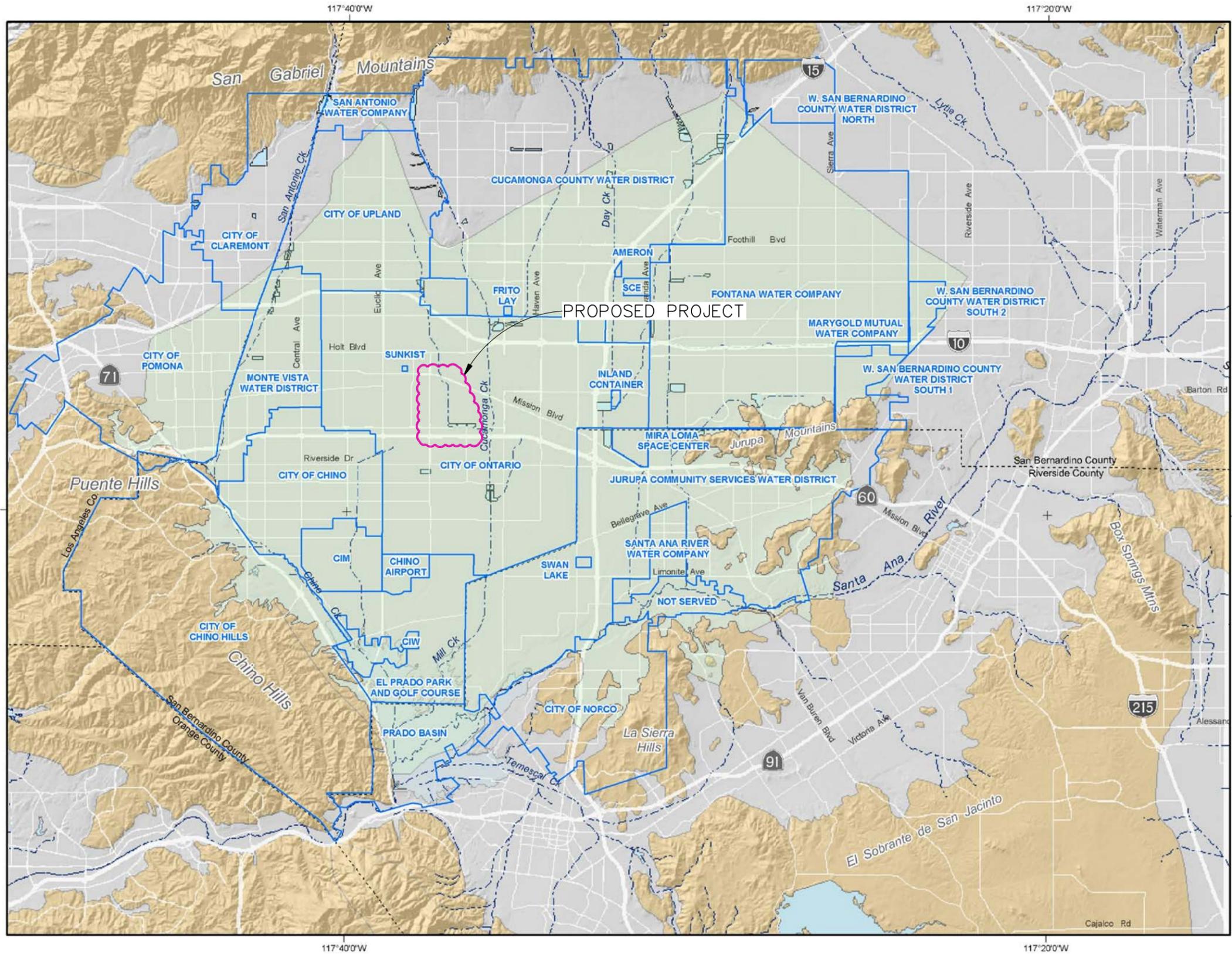
The City will perform all construction administration duties to verify that construction is being completed in accordance with the contract documents. Administration includes management, construction staking, geotechnical engineering, environmental compliance testing, and inspection.

**Budget Category (g): Other Costs**

Not a part of this work plan

**Budget Category (h): Construction/Implementation Contingency**

A construction / implementation contingency of approximately \$1,280,000 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.

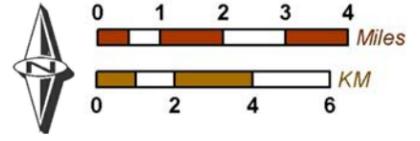


- Main Feature**
- Water Service Area Boundaries
  - Chino Basin
- Other Features**
- Flood Control and Conservation Basins
  - Unconsolidated Sediments
  - Consolidated Bedrock



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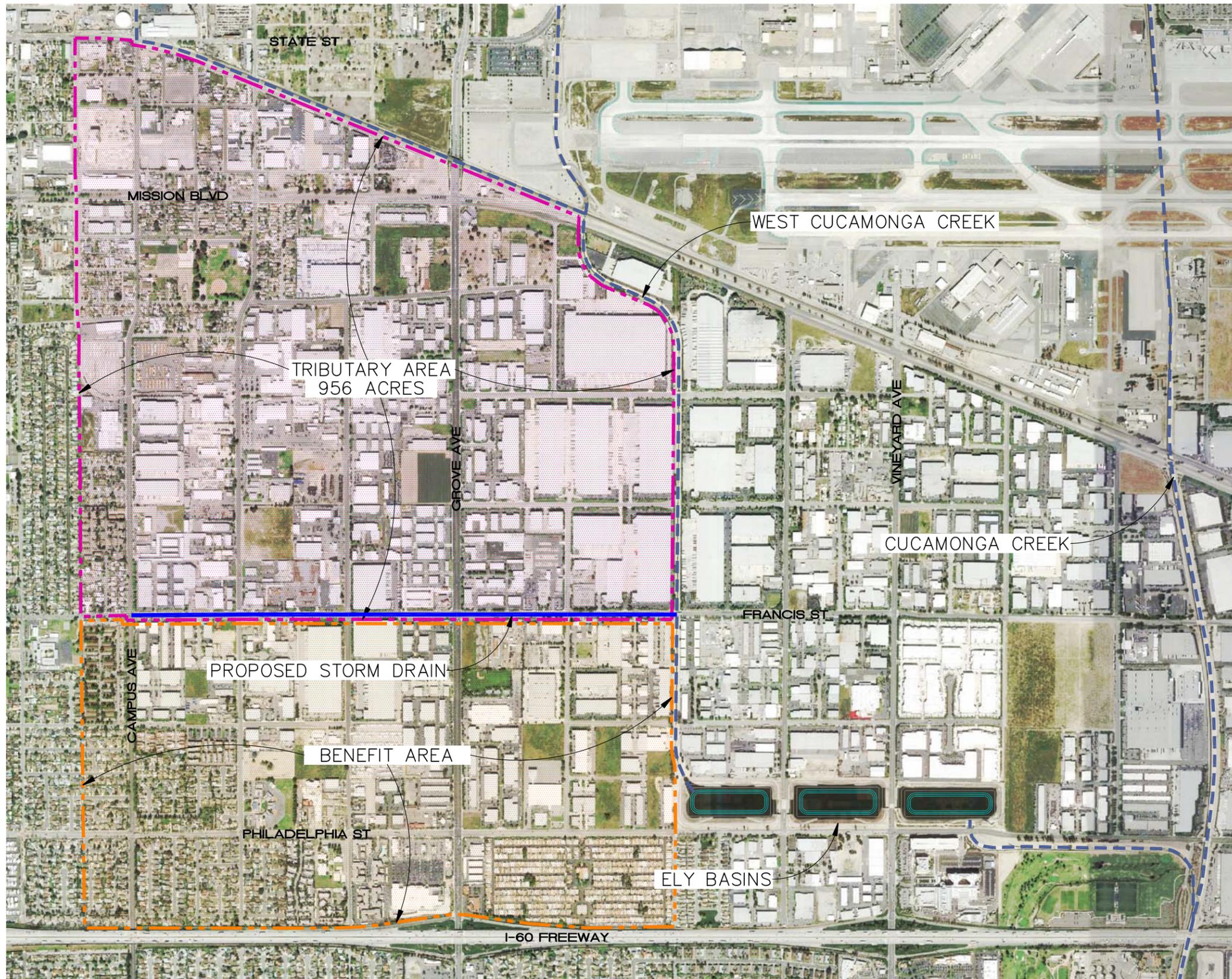
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**CITY OF ONTARIO**  
 ATTACHMENT 3-1  
 REGIONAL MAP

S:\CADD\134-01 Francis Street Drainage System\Att 3-1\_Regional Map.dwg



**LEGEND:**

- - - - EXIST. STORM CHANNEL
- · - · - PROP. TRIBUTARY AREA
- \_ \_ \_ \_ PROP. STORM DRAIN



SCALE: 1" = 600'

S:\CADD\134-01 Francis Street Drainage System\Att 3-2\_Project\_Map.dwg

	TKE ENGINEERING, INC. 2305 CHICAGO AVENUE RIVERSIDE, CA 92507 (951) 680-0440	CITY OF ONTARIO
	FAX: (951) 680-0490	ATTACHMENT 3-2 FRANCIS STREET STORM DRAIN AND ELY BASIN PROJECT