



Project Background

Following the widespread flooding that was experienced during the storm events of June and July 2010, and April 2013, Christopher B. Burke Engineering, Ltd. (CBBEL) was hired to develop a comprehensive flood plan for the City of Elmhurst (City). As part of the comprehensive flood plan, thirteen (13) flood-prone areas throughout the City were studied to determine proposed drainage improvements to alleviate the flooding in those areas.

The most cost-effective solution identified to reduce flooding is the creation of flood storage in open spaces throughout the City. One of these open spaces identified in the comprehensive flood plan was the Elmhurst Quarry, which is currently used as a flood control reservoir for Salt Creek. The proposed project would benefit many homes in the Walnut/Evergreen/Myrtle flood problem area, which is located adjacent to the quarry in the northwest corner of the City.



Conceptual Solution

Project Details

Creating compensatory flood storage in the Elmhurst Quarry in conjunction with the construction of relief sewers would significantly reduce the risk of flooding for the homes in the Walnut/Evergreen/Myrtle flood problem area in Elmhurst.

Key Benefits and Facts

This project would provide flood-reduction benefits to the 52 homes that would currently flood during a 100-year design storm event (76 homes were shown to be impacted by the April 2013 storm event). The conceptual project cost for the construction of the relief sewer/compensatory storage is \$4.97 million and the construction timeline is estimated between 12 and 18 months.

Project Description

The goal of this project is to provide a location to safely hold stormwater during extreme rainfall events. The proposed project involves the construction of a relief sewer that extends from the low-lying areas in the Walnut/Evergreen/Myrtle study area to the Elmhurst Quarry. During significant storm events, the stormwater would be safely held in the quarry instead of the streets in the surrounding neighborhood.

Since the Elmhurst Quarry is a regional flood control reservoir for Salt Creek that provides flood-reduction benefits to many communities, compensatory storage may be required to offset the increased stormwater volume being sent to the quarry. Approximately 20 acre-feet of compensatory flood storage can be created by excavating the western lobe of the quarry, which was used in the past as a landfill for clean construction debris.

Since every drop of water sent to the quarry must eventually be pumped out, stormwater from less frequent, non-flood causing events would drain through the existing storm sewer system directly to Salt Creek. During significant storm events, pipes would divert water away from the flood-prone areas and convey it directly into the Elmhurst Quarry.



April 2013 Inundation Area



Western Lobe – Elmhurst Quarry