

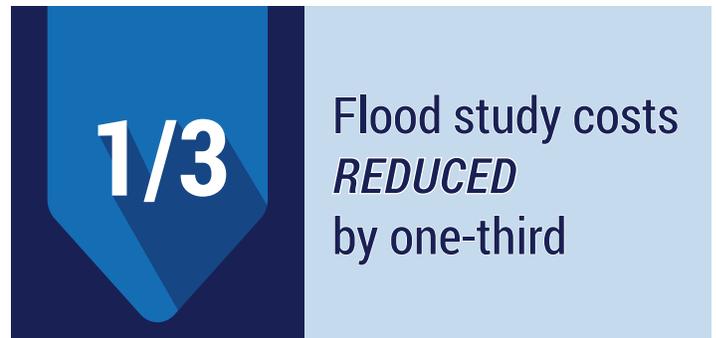
# CASE STUDY

## Engineers advance floodplain studies and reduce cost with data from Intermap®.

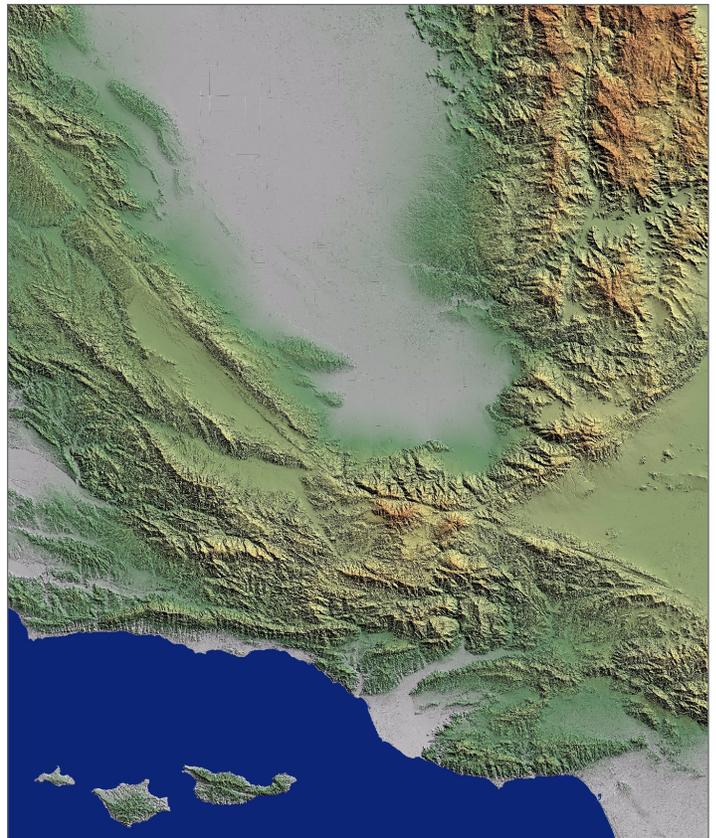
### Challenges

Cornerstone Engineering, Inc. is a civil engineering and land surveying firm headquartered in Bakersfield, California. The company supports a host of public and private enterprises with the design, management, and construction of infrastructure systems for transportation, wastewater, storm drain facilities, and more.

Cornerstone requires high-quality digital terrain model (DTM) datasets to map alluvial fan floodplain areas that can impact multi-million dollar land development projects. In order to conduct vital floodplain studies, the firm's engineers **needed large topographical datasets** that detail expansive areas across California's complex and varied terrain – from rugged mountain ranges and farm-rich valleys to arid deserts and coastal plains. "We had been using the outdated U.S. Geological Survey data," said engineering supervisor Alan Whitten. "We would have to combine this old topographic information with time-consuming



**1/3** Flood study costs *REDUCED* by one-third



NEXTMap® digital terrain model (DTM), colored and shaded to show relief, of Bakersfield California and Kern County,

field surveys just to get basic data. Basically, we needed quality data in order to serve our customers better and reduce costs.”

## Solution

Cornerstone was referred to Intermap based on a recommendation by the floodplain supervisor for Kern County, California. After viewing sample datasets, Cornerstone purchased digital elevation models created by Intermap’s proprietary interferometric synthetic aperture radar (IFSAR) technology. The company now uses NEXTMap® products, including DTMs and orthorectified radar images (ORIs), for its numerous high-stakes mapping projects. The data integrated into

Cornerstone’s current system “quite easily,” said Whitten. “Because we use FLO-2D® and AutoCAD®, we need XYZ-coordinate files in state plane coordinates for use with our software. Intermap went out of its way to convert the aerial imagery and provided it in the format we needed.”

## Benefits

Now a repeat customer, Cornerstone Engineering relies on Intermap because, according to Whitten, the “geospatial data definitely meets our expectations and they provide great customer service to accommodate our specific needs.”

“We’ve cut out a lot of labor costs that we had in the past to prepare base maps for these studies,” Whitten said. “Now that we have Intermap’s current and cost-effective datasets, we’ve been able to reduce the expense of a typical \$10,000 to \$15,000 flood study by one-third. We couldn’t turn out the quality floodplain studies that we have today without Intermap’s enhanced and accurate data.”

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**Alan Whitten**  
Engineering Supervisor  
Cornerstone Engineering

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