

The Big Wash Rehabilitation Project

Background

Oro Valley voters recently approved a proposal to build an 800,000 sq. ft. commercial development that will include a retail center and a movie theater. As part of a previous agreement, unrelated to the commercial development, the Vestar Corporation is required to restore a former farm field that is owned by Pima County.

Location

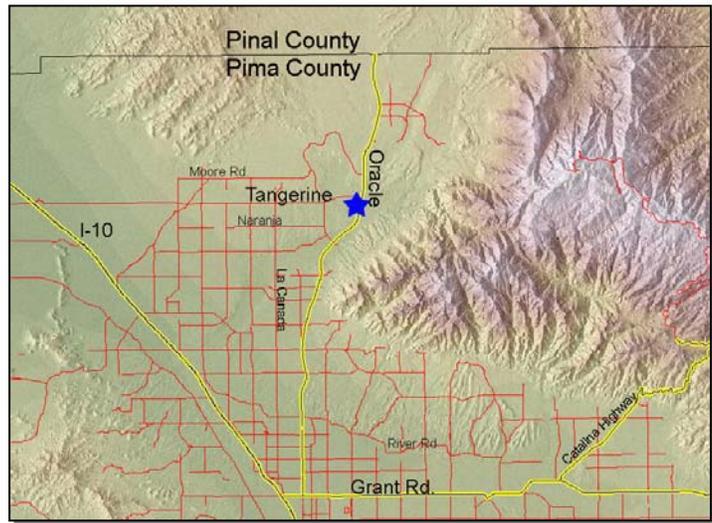
The proposed Oro Valley Marketplace and adjacent rehabilitation site are located in the Town of Oro Valley, at the southwest corner of Oracle Road (Highway 77) and Tangerine.

Existing Conditions

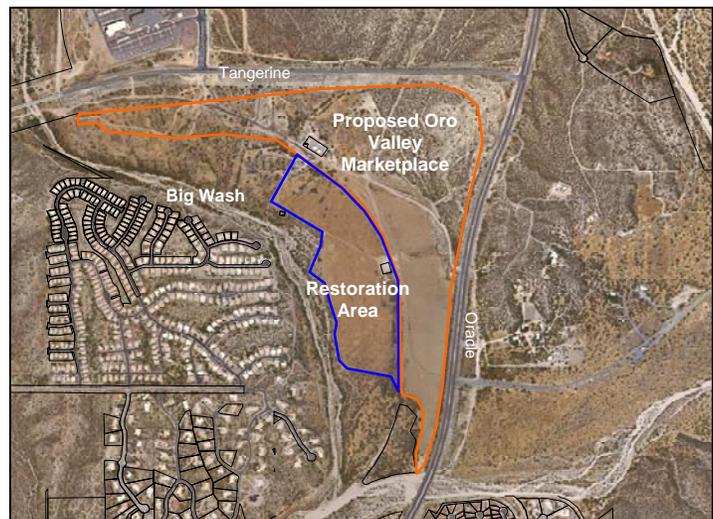
The site is located in the Big Wash floodplain, just upstream of the Cañada del Oro Wash. Land use in the surrounding area consists of residential development to the west, a hospital to the north, and Catalina State Park and residential to the east. Currently, the rehabilitation site is primarily retired agricultural land and degraded mesquite woodland. The farm field contains annual grasses and forbs. In the recent past, much of the site has been bladed or disked to reduce the fire risk the dried annuals present.

Rehabilitation Goals

The goal of the rehabilitation project is to replace the low diversity vegetation with a diverse mix of native vegetation based on characteristics of near-by natural reference sites. The project proposes to create a self-sustaining ecological system that will be similar in hydrology, topography, vegetation, and functions to what is found in the undeveloped portions of the Big Wash floodplain.



Location of proposed retail development and restoration site.



Existing Conditions: Restoration area outlined in Blue. Vestar development outlined in Red.

The project will contour the site to capture water from several small tributaries and from storm water runoff generated from the impervious surfaces of Oro Valley Marketplace. The water will flow through a network of streambed channels intended to encourage the establishment of similar topography naturally occurring in the reference sites. Initially, the vegetation will be irrigated; as the vegetation matures and is established, supplemental irrigation will no longer be necessary.



View looking upstream of Big Wash. Transects across sections of Big Wash were used as reference plots to guide what might be appropriate vegetation and site contours for the rehabilitation area.

Plant species used in the project will be similar to the species found in the reference sites. Planted and preserved-in-place trees will include velvet mesquite, whitethorn acacia, paloverde, catclaw acacia, and others. A mix of mid and understory species will be used to create a diverse xero-riparian community.

Project Issues

The Vestar Corporation plans on constructing a retail center adjacent to the rehabilitation site. As part of the commercial development, Vestar is allowed to remove some fill material from the site. The removal of material would allow more frequent inundation of the rehabilitation site by Big Wash. Plans have not been finalized for the fill removal, and the rehabilitation plans are on hold until the details are worked out.



View of retired agricultural field targeted for rehabilitation. The field vegetation primarily consists of non-native annuals.