Yavapai College Southwest Wine Center

Active rainwater harvesting at teaching winery

SKYWATER

tbk
t barnabas kane & associates
ENVIRONMENTAL DESIGN

Yavapai College Southwest Wine Center

Project Overview

Active and passive systems for teaching vineyard and winery

- **Industry/Sector**: Higher education
- **Client:** Yavapai College
- **Location**: Clarkdale, Arizona
- **Completion**: 2013
- **Description:** An active system captures roof runoff, which may be filtered and reused, and meets or exceeds landscape irrigation demand. We collaborated with a local artist to craft a steel rain funnel that elegantly captures water from the roof scuppers. Overflows are plumbed back into the landscape for passive irrigation. Multiple landscape basins are graded to maximize run-off capture, filter pollutants, and assist with stormwater mitigation.

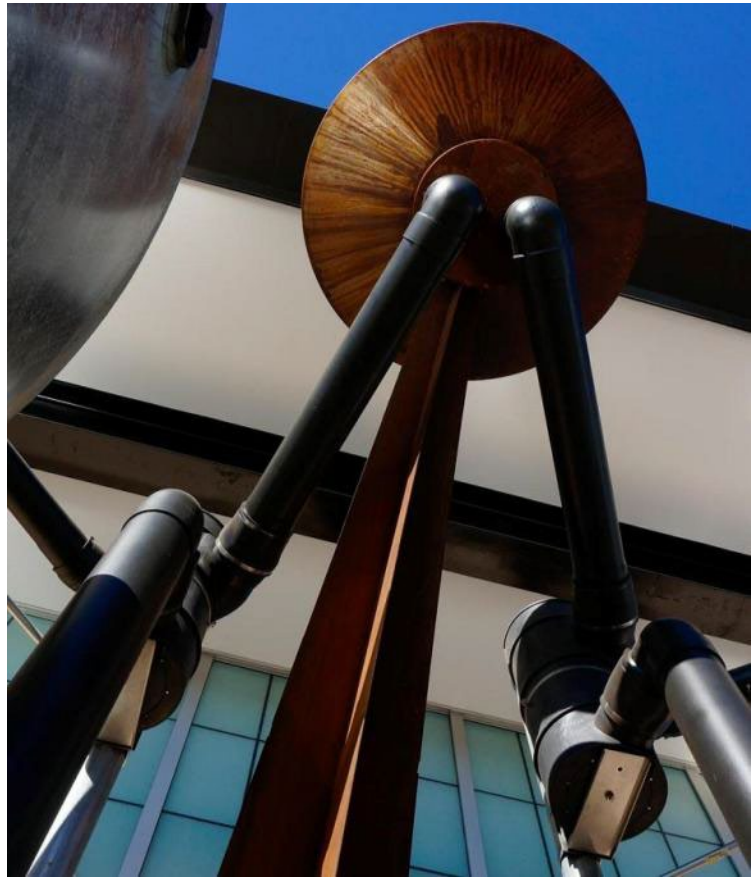
Yavapai College Southwest Wine Center

Design Data

- **Water use**: landscape irrigation, indoor reuse
- **Annual average rainfall**: 11 in.
- **Available roof and paver area**: 8,600 sq. ft.
- **Roof material**: EDPM

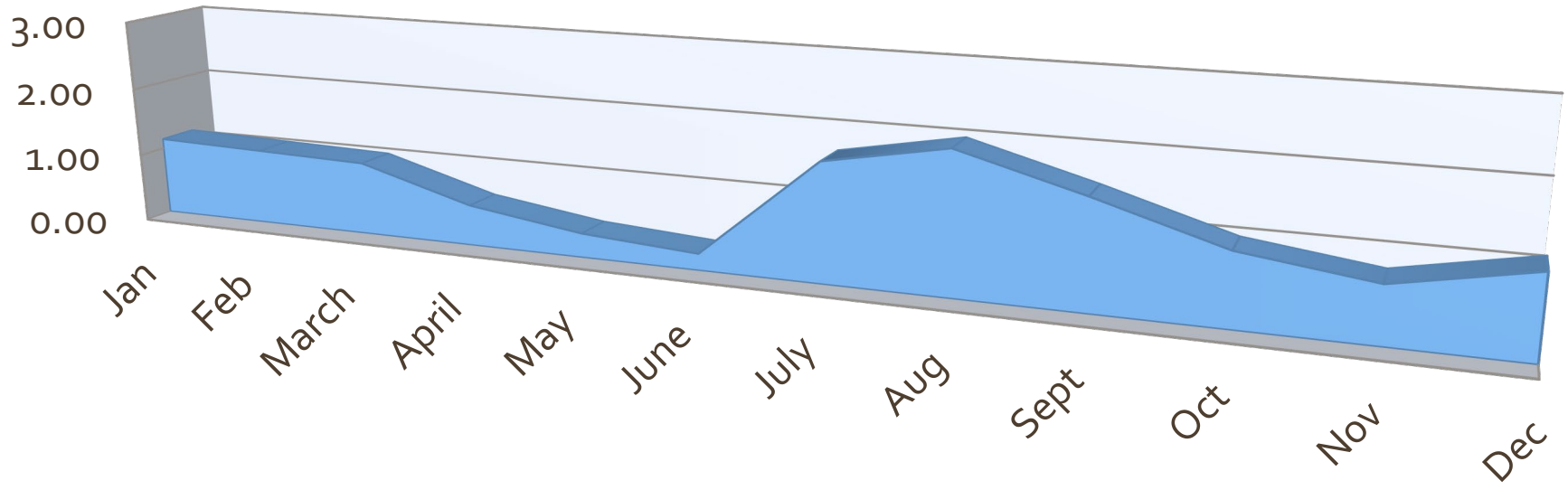
Yavapai College Southwest Wine Center
Rainwater System

- **Storage**: 10,000 gal.
- **System**: lined stainless steel tanks
- **Filtration**: Pre-Filtration: 2 WISY 150 vortex filters
- **Pump**: 1.0 hp. submersible
- **Roof and surface conveyance**: wet
- **Irrigation**: gravity
- **Overflow**: landscape



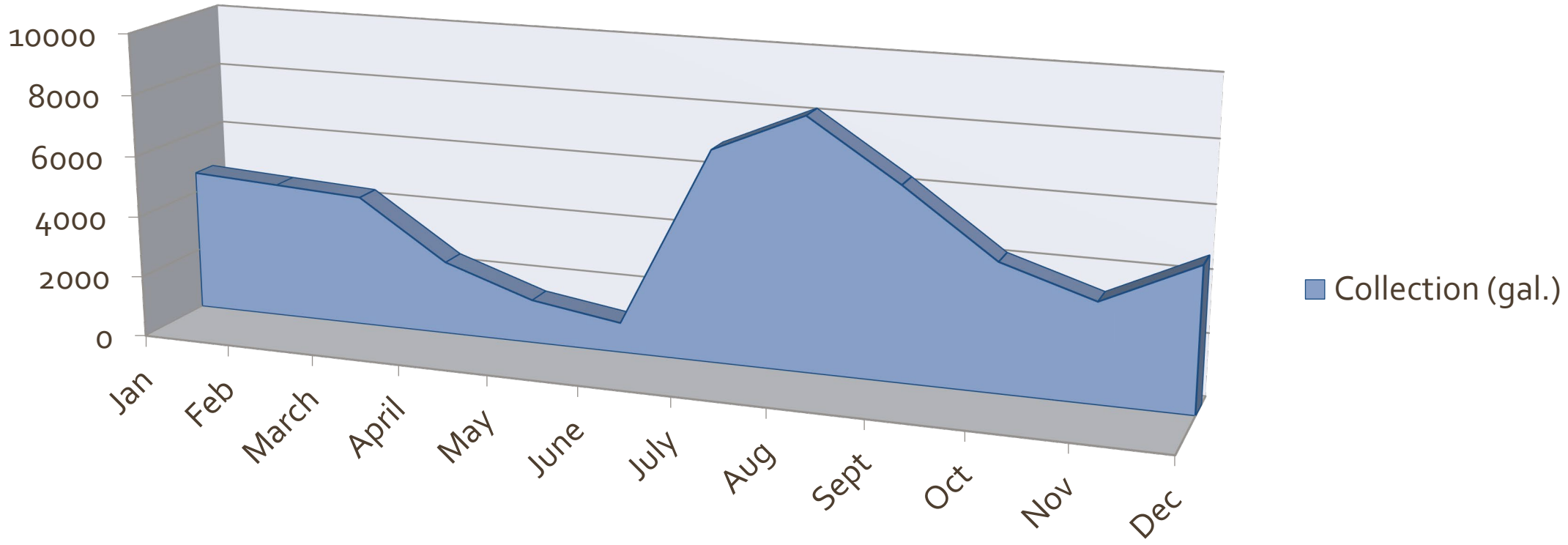
Yavapai College Southwest Wine Center

Average Annual Precipitation (in.)



Yavapai College Southwest Wine Center

Collection Potential (gal.)



Yavapai College Southwest Wine Center
Team

- **Designer**: TBK Environmental Design
- **Architect**: Boxwood
- **Steel Artist**: Royce Carlson
- **Installer**: Skywater, High Desert Permaculture

Skywater

P.O. Box 2100
Prescott, Arizona 86302
928-445-3515

skywaterarizona.com