

Rainwater Catchment Analysis
PLN-12788-SP
APN 210-071-001

A 250,000-gallon capacity existing rainwater catchment pond for the above project.

The approximate surface catchment area of the pond and surrounding area is approximately 8,000 square feet.

Per <https://prism.oregonstate.edu/explorer/> and using GPS coordinates for the project parcel, the lowest rainfall year between 1969 and 2024 was 2013 during which 28.92 inches of annual rainfall occurred. Analysis of the 10 lowest rainfall years (data table below) between 1972 and 2024 resulted in a low rainfall year average of 43.03 inches.

YEAR	RAIN	
2013	24.74	
1976	34.46	
2020	39.01	
1985	39.96	
1991	42.22	
2022	45.5	
1990	48.12	
1989	50.07	
1994	52.61	
2015	53.62	
		Average
Total	430.31	43.031

Worst Drought Year Rainfall Collection Scenario (2013)

28.92 (rainfall) x 8,000 square feet (catchment area) x .623 (conversion factor)
= 123,304 gallons

10 Worst Rainfall Years Collection Scenario (1972 to 2024)

43.03 (rainfall) x 8,000 square feet (catchment area) x .623 (conversion factor)
= 214,462 gallons

Average Rainfall Collection Scenario (1972 to 2024)

74.98 (rainfall) x 8,000 square feet (catchment area) x .623 (conversion factor)
= 373,700 gallons

Conclusion: The pond is likely to fill with enough water to serve irrigation needs in an average rainfall year or in an average low rainfall year but unlikely to provide enough irrigation water in a severe drought year.