

Exhibit I

Client: Quantum Limit Vineyards
Project Description: New Vineyard Development Erosion Control Plan
Project Number: 190101-0104
Date: 9/3/2021

Pond Capacity Analysis

For circular ponds, surface area can be approximated by the following equation:

$$A = P^2/547,390 \quad \text{where;}$$

A = surface area (acres)

P = shoreline perimeter (feet)

Shoreline perimeter: 850 feet (provided by owner)

Average pond depth: 9 feet (provided by owner)

Surface area = 1.3 acres

$$V = A \times D \quad \text{where;}$$

V = Pond volume (acre-feet)

A = surface area (acres)

D = average pond depth (feet)

Pond volume = 11.9 acre-feet