

# Rainwater Catchment Diversion Plan

**Permittee:** Mayors Flat Farm

**Rainwater Catchment Structure Location:** 40.06413977, -123.9934734

**Rainwater Catchment Design:** 5,400sqft area of existing rainwater catchment pond with 21,400sqft of sheet flow potential.

**Project Name:** Mayors Flat Rainwater Catchment

**Project Description:** The applicant is planning to collect rainwater from an existing rain water catchment pond. Applicant plans to fill the pond to its entirety of 350,000 gallons, and pump excess flows to a collection of water storage tanks.

**Water Storage:** The primary water storage structure for this project consists of a 350,000-gallon rainwater catchment pond. The applicant currently has two 3,000-gallon water tanks and is proposing to install 40,000 gallons of additional hard tank storage.

## Rainwater Catchment Estimates







Rainwater catchment estimates are based on the square footage of the existing pond surface and the hillside directly above the pond. The pond surface is approximately 100ft by 54ft. Sheet flow area above the pond is estimated utilizing one topographic interval spanning 40ft of elevation difference with a length of 214ft and a width of 100ft.

The surface area of the existing pond is approximately 5,400sqft. The hillside directly above has an unimpeded sheet flow area of approximately 21,400sqft. Sheet flow is expected to be collected after the ground is saturated during rain events allowing for rainwater to be captured by the pond. The pond is lined and excess flows are conveyed by an overflow. Total area used for estimated rainfall capturing is 26,800sqft. The total amount of water collected throughout the year is estimated to be 804,098 gallons. The pond is estimated to be at full capacity by the end of march of with excess flows of 46,000 gallons to be pumped to the collection of storage tanks. Excess flows will be pumped by means of gasoline powered water pump to the two holding tanks uphill in an eastern direction. Rainwater estimations are predicted by utilizes average rainfall estimates from the past ten years. See attached Site Plan and diagram for reference.




## Monthly Rainwater Catchment Estimate

<b>Month</b>	<b>Average Precipitation (Inches)</b>	<b>Total Rain Water Catchment (Gallons)</b>
<b>January</b>	<b>9.03</b>	<b>150,768</b>
<b>February</b>	<b>7.39</b>	<b>123,386</b>
<b>March</b>	<b>6.35</b>	<b>106,022</b>
<b>April</b>	<b>3.66</b>	<b>61,108</b>
<b>May</b>	<b>1.95</b>	<b>32,557</b>
<b>June</b>	<b>.83</b>	<b>13,858</b>
<b>July</b>	<b>.12</b>	<b>2,003</b>
<b>August</b>	<b>.12</b>	<b>2,003</b>
<b>September</b>	<b>.59</b>	<b>9,850</b>
<b>October</b>	<b>2.69</b>	<b>44,913</b>
<b>November</b>	<b>5.79</b>	<b>96,672</b>
<b>December</b>	<b>9.64</b>	<b>160,953</b>
<b>Total</b>	<b>48.16</b>	<b>804,098</b>




# Rain Water Catchment Site Map

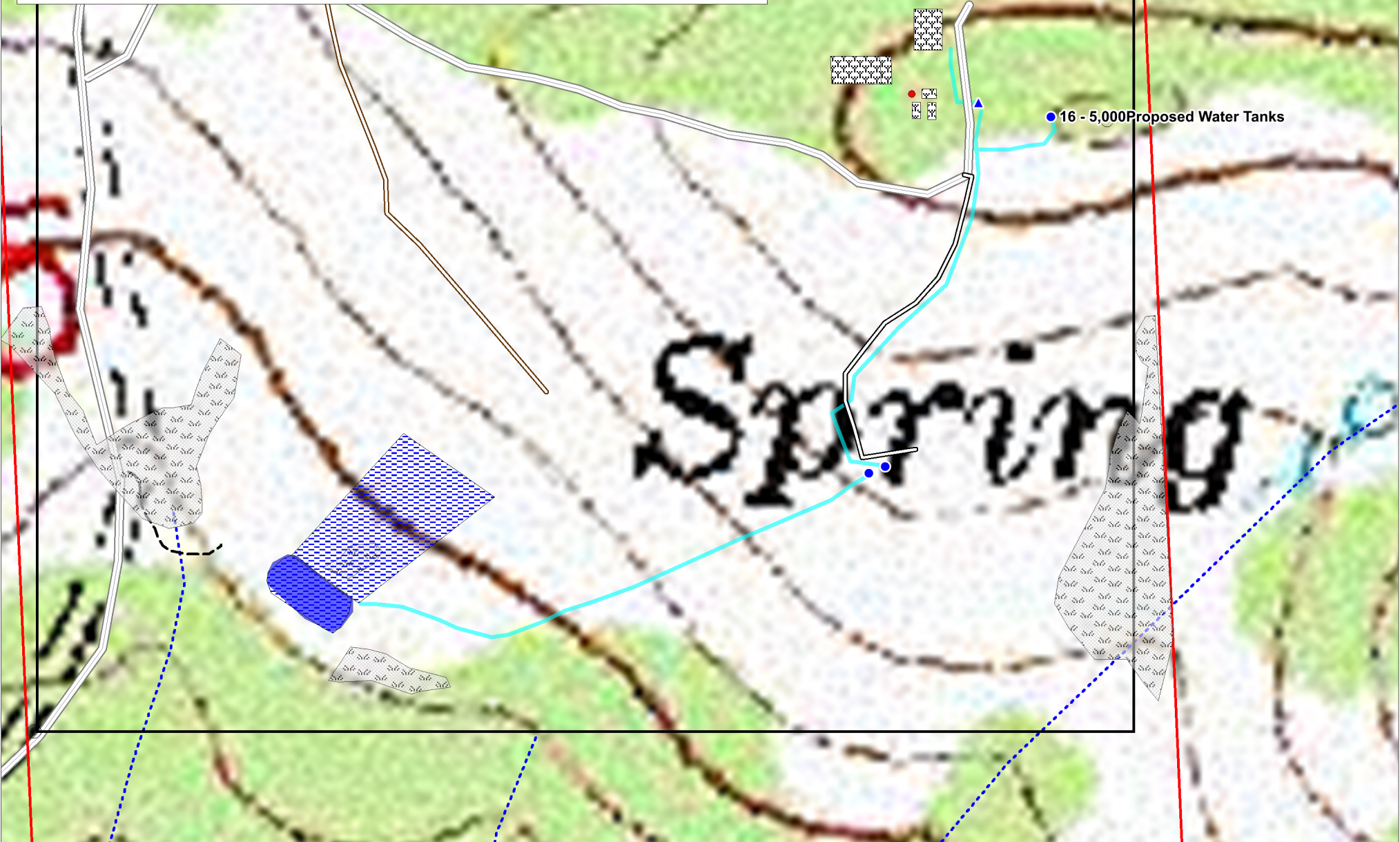
-  Property Boundary
-  Rain Water Catchment Area
-  Wetland Area
-  Pond
-  Water Line
-  Topographic Interval 40ft

## Watercourse

-  Class I
-  Class II
-  Class III

## Roads

-  Permanent
-  proposed
-  trail



Photograph



Rainwater catchment pond point of collection.

# Example Rainwater Catchment Basin Photographs – Not to Scale

