

# MODRET

## SUMMARY OF UNSATURATED & SATURATED INPUT PARAMETERS

**PROJECT NAME : Montesa**  
**MANUAL RUNOFF DATA USED**  
**UNSATURATED ANALYSIS INCLUDED**

Pond Bottom Area	60,000.00 ft <sup>2</sup>																														
Pond Volume between Bottom & DHWL	102,000.00 ft <sup>3</sup>																														
Pond Length to Width Ratio (L/W)	2.53																														
Elevation of Effective Aquifer Base	100.60 ft																														
Elevation of Seasonal High Groundwater Table	107.60 ft																														
Elevation of Starting Water Level	110.60 ft																														
Elevation of Pond Bottom	110.60 ft																														
Design High Water Level Elevation	112.30 ft																														
Avg. Effective Storage Coefficient of Soil for Unsaturated Analysis	0.20																														
Unsaturated Vertical Hydraulic Conductivity	4.00 ft/d																														
Factor of Safety	1.00																														
Saturated Horizontal Hydraulic Conductivity	12.00 ft/d																														
Avg. Effective Storage Coefficient of Soil for Saturated Analysis	0.20																														
Avg. Effective Storage Coefficient of Pond/Exfiltration Trench	1.00																														
<b>Hydraulic Control Features:</b>																															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 25%;">Top</th> <th style="width: 25%;">Bottom</th> <th style="width: 25%;">Left</th> <th style="width: 25%;">Right</th> </tr> </thead> <tbody> <tr> <td><b>Groundwater Control Features - Y/N</b></td> <td style="text-align: center;">N</td> <td style="text-align: center;">N</td> <td style="text-align: center;">N</td> <td style="text-align: center;">N</td> </tr> <tr> <td>Distance to Edge of Pond</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td>Elevation of Water Level</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td><b>Impervious Barrier - Y/N</b></td> <td style="text-align: center;">N</td> <td style="text-align: center;">N</td> <td style="text-align: center;">N</td> <td style="text-align: center;">N</td> </tr> <tr> <td>Elevation of Barrier Bottom</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0.00</td> </tr> </tbody> </table>		Top	Bottom	Left	Right	<b>Groundwater Control Features - Y/N</b>	N	N	N	N	Distance to Edge of Pond	0.00	0.00	0.00	0.00	Elevation of Water Level	0.00	0.00	0.00	0.00	<b>Impervious Barrier - Y/N</b>	N	N	N	N	Elevation of Barrier Bottom	0.00	0.00	0.00	0.00
	Top	Bottom	Left	Right																											
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Elevation of Barrier Bottom	0.00	0.00	0.00	0.00																											

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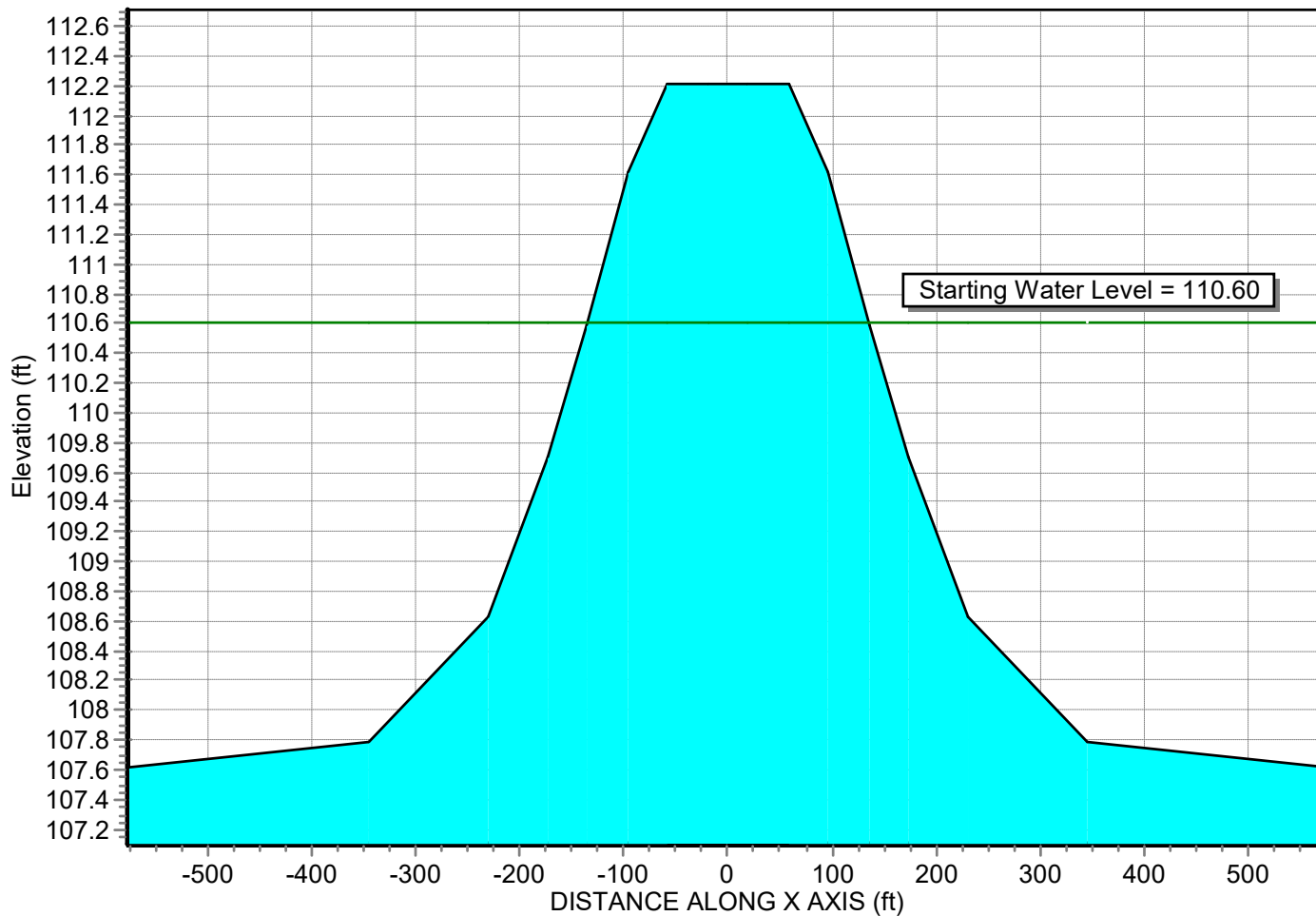
## TIME - RUNOFF INPUT DATA

PROJECT NAME: MONTESA

STRESS PERIOD NUMBER	INCREMENT OF TIME (hrs)	VOLUME OF RUNOFF (ft <sup>3</sup> )
Unsat	4.80	48,000.00
1	24.00	47.00
2	24.00	12.00
3	24.00	14,320.00
4	24.00	3,830.00
5	24.00	1,360.00
6	24.00	323.00
7	24.00	29.00
8	24.00	22.00
9	24.00	0.00
10	24.00	0.00
11	24.00	0.00
12	24.00	0.00
13	24.00	7,152.00
14	24.00	4,774.00
15	24.00	130,338.00
16	24.00	639.00
17	24.00	5,074.00
18	24.00	10,750.00
19	24.00	5,166.00
20	24.00	5,372.00
21	24.00	60.00
22	24.00	10,628.00
23	24.00	10,741.00
24	24.00	985.00
25	24.00	6,158.00
26	24.00	229.00
27	24.00	25.00
28	24.00	21.00
29	24.00	0.00

Analysis Date: 8/11/2021

**CROSS SECTION : Montesa**



CROSS SECTION ALONG X AXIS AT Y AXIS = 0.00 ft @ 556 hrs

## Jesse Jarrell

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**From:** Henry Wright <henryw@esnw.com>  
**Sent:** Thursday, August 12, 2021 12:31 PM  
**To:** Jesse Jarrell  
**Cc:** Cooper Danby; Kyler Kelly  
**Subject:** RE: Montesa/Marsyville 10 - Mounding Analysis

CAUTION: This email originated from outside of LDC. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jesse,

With a 4' separation, the mounding analysis still shows a mound into the facility to an elevation of about 111.6'

*Thank you,*

**Henry T. Wright, P.E.**  
Senior Project Manager  
**Earth Solutions NW, LLC**

Phone: 425-449-4704  
Cell: 206-793-4193  
Email: [henryw@esnw.com](mailto:henryw@esnw.com)

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**From:** Henry Wright  
**Sent:** Thursday, August 12, 2021 11:47 AM  
**To:** 'Jesse Jarrell' <jjarrell@ldccorp.com>  
**Cc:** Cooper Danby <cdanby@ldccorp.com>; Kyler Kelly <kylerk@esnw.com>  
**Subject:** RE: Montesa/Marsyville 10 - Mounding Analysis

Hi Jesse,

Thanks for the clarification, we will rerun with 4' separation and let you know.

*Thank you,*

**Henry T. Wright, P.E.**  
Senior Project Manager  
**Earth Solutions NW, LLC**

Phone: 425-449-4704  
Cell: 206-793-4193  
Email: [henryw@esnw.com](mailto:henryw@esnw.com)

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**From:** Jesse Jarrell <jjarrell@ldccorp.com>  
**Sent:** Thursday, August 12, 2021 11:40 AM  
**To:** Henry Wright <henryw@esnw.com>