### Skimmer Basin #1

**Okay**

- 3.24 Disturbed Area (Acres)
- 9,536,88 Peak Flow from 10-year Storm (cfs)
- 5832 Required Volume ft³
- 3099 Required Surface Area ft²
- 39.4 Suggested Width ft
- 78.7 Suggested Length ft

- 32 Trial Top Width at Spillway Invert ft
- 97 Trial Top Length at Spillway Invert ft
- 2 Trial Side Slope Ratio Z:1
- 3.5 Trial Depth ft (2 to 3.5 feet above grade)
- 18 Bottom Width ft
- 83 Bottom Length ft
- 1494 Bottom Area ft²
- 7932 Actual Volume ft³
- 3104 Actual Surface Area ft²

- 10 Trial Weir Length ft
- 0.5 Trial Depth of Flow ft
- 10.6 Spillway Capacity cfs

- 2 Skimmer Size (inches)
- 0.167 Head on Skimmer (feet)
- 1.5 Orifice Size (1/4 inch increments)
- 2.75 Dewatering Time (days)
  
  Suggest about 3 days

<table>
<thead>
<tr>
<th>Skimmer Size (inches)</th>
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<tbody>
<tr>
<td>1.5</td>
</tr>
<tr>
<td>2</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

**567.50 Water Surface Elev.**

Q10 = C I A = .35 x 7.04 in/hr x 3.24 acres

**Top = 569.00**

**Weir = 568.00**

**Water = 567.50**
## Skimmer Basin #2

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<thead>
<tr>
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<tr>
<td>Required Volume ft³</td>
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<tr>
<td>Suggested Width ft</td>
<td>24.3</td>
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<tr>
<td>Suggested Length ft</td>
<td>48.7</td>
</tr>
<tr>
<td>Trial Top Width at Spillway Invert ft</td>
<td>25</td>
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<tr>
<td>Trial Top Length at Spillway Invert ft</td>
<td>49</td>
</tr>
<tr>
<td>Trial Side Slope Ratio</td>
<td>2:1</td>
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<tr>
<td>Trial Depth ft</td>
<td>3.5</td>
</tr>
<tr>
<td>(2 to 3.5 feet above grade)</td>
<td></td>
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<tr>
<td>Bottom Width ft</td>
<td>11</td>
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<tr>
<td>Bottom Length ft</td>
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<td>Bottom Area ft²</td>
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<td>Actual Volume ft³</td>
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<td>Actual Surface Area ft²</td>
<td>1225</td>
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<td>Trial Weir Length ft</td>
<td>10</td>
</tr>
<tr>
<td>Trial Depth of Flow ft</td>
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<tr>
<td>Spillway Capacity cfs</td>
<td>10.6</td>
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<td>Skimmer Size (inches)</td>
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<tr>
<td>Head on Skimmer (fee)</td>
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<tr>
<td>Orifice Size (1/4 inch increments)</td>
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<tr>
<td>Dewatering Time (days)</td>
<td>2.82</td>
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<td>Suggest about 3 days</td>
<td></td>
</tr>
</tbody>
</table>

### Water Surface Elev.

- 574.5 ft

### Skimmer Size

- 1.5
- 2
- 2.5
- 3
- 4
- 5
- 6
- 8

### Diagram

- Top = 576.00
- Weir = 575.00
- Water = 574.50
- Bottom = 571.00
Skimmer Basin #3

Okay

3.62 Disturbed Area (Acres)
8.32 Peak Flow from 10-year Storm (cfs)

6516 Required Volume ft³
2899 Required Surface Area ft²
38.1 Suggested Width ft
76.1 Suggested Length ft

38 Trial Top Width at Spillway Invert ft
77 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3.5 Trial Depth ft (2 to 3.5 feet above grade)
24 Bottom Width ft
63 Bottom Length ft
1512 Bottom Area ft²
7652 Actual Volume ft³
2926 Actual Surface Area ft²

10 Trial Weir Length ft
5 Trial Depth of Flow ft
10.6 Spillway Capacity cfs

Okay

2 Skimmer Size (inches)
0.167 Head on Skimmer (feet)
1.5 Orifice Size (1/4 inch increments)
3.07 Dewatering Time (days)
Suggest about 3 days

03/19/19 KCG

575.5 Water Surface Elev.
Skimmer Basin #4

Okay

2.88 Disturbed Area (Acres)
7.40 Peak Flow from 10-year Storm (cfs)

5184 Required Volume ft³
2306 Required Surface Area ft²
34.0 Suggested Width ft
67.9 Suggested Length ft

34 Trial Top Width at Spillway Invert ft
68 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3.5 Trial Depth ft (2 to 3.5 feet above grade)
20 Bottom Width ft
54 Bottom Length ft
1080 Bottom Area ft²
5822 Actual Volume ft³
2312 Actual Surface Area ft²

8 Trial Weir Length ft
0.5 Trial Depth of Flow ft
8.5 Spillway Capacity cfs

2 Skimmer Size (inches)
0.167 Head on Skimmer (feet)
1.25 Orifice Size (1/4 inch increments)
3.51 Dewatering Time (days)

Suggest about 3 days

Q10 = CI A = .35 x 7.04 in/hr x 2.88 acres

Top = 609.50
Weir = 608.50
Water = 608.00

Bottom = 604.50
Skimmer Basin #5

Okay

2.02 Disturbed Area (Acres)
4.98 Peak Flow from 10-year Storm (cfs)

3636 Required Volume ft³
1618 Required Surface Area ft²
28.4 Suggested Width ft
56.9 Suggested Length ft

26 Trial Top Width at Spillway Invert ft
65 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3.5 Trial Depth ft  (2 to 3.5 feet above grade)
12 Bottom Width ft
51 Bottom Length ft
612 Bottom Area ft²
3914 Actual Volume ft³
1690 Actual Surface Area ft²

6 Trial Weir Length ft
0.5 Trial Depth of Flow ft
6.4 Spillway Capacity cfs

1.5 Skimmer Size (inches)
0.125 Head on Skimmer (feet)
1.25 Orifice Size (1/4 inch increments)
2.85 Dewatering Time (days)
Suggest about 3 days

Q10 = C I A = .35 x 7.04 in/hr x 2.02 acres

Top = 602.00
Weir = 601.00
Water = 600.50

Bottom = 597.00

65'
26'
5'

Skimmer Size:

<table>
<thead>
<tr>
<th>Inches</th>
<th>1.5</th>
<th>2</th>
<th>2.5</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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600.5 Water Surface Elev.
### Skimmer Basin #6

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<tr>
<th>Parameter</th>
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<tbody>
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<td>Disturbed Area (Acre)</td>
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<tr>
<td>Peak Flow from 10-year Storm (cfs)</td>
<td>3.99</td>
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<tr>
<td>Required Volume ft³</td>
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<td>Required Surface Area ft²</td>
<td>1297</td>
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<tr>
<td>Suggested Width ft</td>
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<tr>
<td>Suggested Length ft</td>
<td>50.9</td>
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<tr>
<td>Trial Top Width at Spillway Invert ft</td>
<td>27</td>
</tr>
<tr>
<td>Trial Top Length at Spillway Invert ft</td>
<td>52</td>
</tr>
<tr>
<td>Trial Side Slope Ratio 2:1</td>
<td>2</td>
</tr>
<tr>
<td>Trial Depth ft (2 to 3.5 feet above grade)</td>
<td>3</td>
</tr>
<tr>
<td>Bottom Width ft</td>
<td>15</td>
</tr>
<tr>
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<td>40</td>
</tr>
<tr>
<td>Bottom Area ft²</td>
<td>600</td>
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<tr>
<td>Actual Volume ft³</td>
<td>2934</td>
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<td>Actual Surface Area ft²</td>
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<td>Weir Length ft</td>
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<tr>
<td>Depth of Flow ft</td>
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<tr>
<td>Skimmer Size (inches)</td>
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<tr>
<td>Head on Skimmer (feet)</td>
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<td>Orifice Size (1/4 inch increments)</td>
<td>1</td>
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<tr>
<td>Dewatering Time (days)</td>
<td>3.57</td>
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</table>

- **Q10 = C I A = 0.35 x 7.04 in/hr x 1.62 acres**

![Diagram of Skimmer Basin #6 with measurements and calculations](image-url)
### Skimmer Basin #7

<table>
<thead>
<tr>
<th>Measurement</th>
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<tbody>
<tr>
<td>Disturbed Area (Acres)</td>
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<td>Peak Flow from 10-year Storm (cfs)</td>
<td>5.10</td>
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<tr>
<td>Required Volume ft³</td>
<td>3726</td>
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<td>Required Surface Area ft²</td>
<td>1658</td>
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<tr>
<td>Suggested Width ft</td>
<td>28.8</td>
</tr>
<tr>
<td>Suggested Length ft</td>
<td>57.6</td>
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<tr>
<td>Trial Top Width at Spillway Invert ft</td>
<td>29</td>
</tr>
<tr>
<td>Trial Top Length at Spillway Invert ft</td>
<td>52</td>
</tr>
<tr>
<td>Trial Side Slope Ratio Z:1</td>
<td>2</td>
</tr>
<tr>
<td>Trial Depth ft</td>
<td>3.3</td>
</tr>
<tr>
<td>(2 to 3.5 feet above grade)</td>
<td></td>
</tr>
<tr>
<td>Bottom Width ft</td>
<td>15</td>
</tr>
<tr>
<td>Bottom Length ft</td>
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<tr>
<td>Bottom Area ft²</td>
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<tr>
<td>Actual Volume ft³</td>
<td>3984</td>
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<td>Actual Surface Area ft²</td>
<td>1682</td>
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<td>Trial Weir Length ft</td>
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<td>0.5</td>
</tr>
<tr>
<td>Spillway Capacity cfs</td>
<td>5.3</td>
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</tbody>
</table>

Skimmer Size (inches):
- 1.5
- 2
- 2.5
- 3
- 4
- 5
- 6
- 8

Dewatering Time (days):
- Suggest about 3 days

3/19/19 KCG

Q10 = C I A = 0.35 x 7.04 in/hr x 2.07 acres

Top = 606.50
Weir = 605.50
Water = 605.00
Bottom = 601.50

NTS

Diagram of Skimmer Basin #7.
### Skimmer Basin #8

<table>
<thead>
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<td>Peak Flow from 10-year Storm (cfs)</td>
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<td>Required Volume ft³</td>
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<td>Required Surface Area ft²</td>
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<td>Trial Top Width at Spillway Invert ft</td>
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<td>Trial Top Length at Spillway Invert ft</td>
<td>88</td>
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<tr>
<td>Trial Side Slope Ratio Z:1</td>
<td>2</td>
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<tr>
<td>Trial Depth ft (2 to 3.5 feet above grade)</td>
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<tr>
<td>Bottom Width ft</td>
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<td>Actual Volume ft³</td>
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<td>Trial Weir Length ft</td>
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<td>Trial Depth of Flow ft</td>
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<td>Head on Skimmer (feet)</td>
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<tr>
<td>Orifice Size (1/4 inch increments)</td>
<td>1.75</td>
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<td>Dewatering Time (days)</td>
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<tr>
<td>Suggest about 3 days</td>
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**Q10 = C l A = .35 x 7.04 in/hr x 4.86 acres**

---

**Diagram:**
- Top: 618.00
- Weir: 617.00
- Water: 616.50
- Bottom: 613.00
Skimmer Basin #10

Okay

1.25 Disturbed Area (Acres)
3.18 Peak Flow from 10-year Storm (cfs)

2322 Required Volume ft³
1033 Required Surface Area ft²
22.7 Suggested Width ft
45.5 Suggested Length ft

23 Trial Top Width at Spillway Invert ft
57 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3.5 Trial Depth ft (2 to 3.5 feet above grade)
9 Bottom Width ft
43 Bottom Length ft
387 Bottom Area ft²
2857 Actual Volume ft³
1311 Actual Surface Area ft²

Okay

4 Trial Weir Length ft
0.9 Trial Depth of Flow ft
4.2 Spillway Capacity cfs

Okay

1.5 Skimmer Size (inches)
0.125 Head on Skimmer (feet)
3 Orifice Size (1/4 inch increments)
2.84 Dewatering Time (days)
  Suggest about 3 days

## Water Surface Elev.

03/19/19 KCG

Q10 = C I A = .35 x 7.04 in/hr x 1.29 acres

Top = 595.00
Weir = 594.00
Water = 593.50

Bottom = 590.00

NTS
Skimmer Basin #11

Okay

3.58 Disturbed Area (Acres)
8.82112 Peak Flow from 10-year Storm (cfs)

6444 Required Volume ft³
2867 Required Surface Area ft²
37.9 Suggested Width ft
75.7 Suggested Length ft

38 Trial Top Width at Spillway Invert ft
76 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3.5 Trial Depth ft (2 to 3.5 feet above grade)
20 Bottom Width ft
58 Bottom Length ft
1160 Bottom Area ft²
6895 Actual Volume ft³
2888 Actual Surface Area ft²

4 Trial Weir Length ft
1 Trial Depth of Flow ft
12.0 Spillway Capacity cfs

3 Skimmer Size (inches)
0.167 Head on Skimmer (feet)
1.5 Orifice Size (1/4 inch increments)
3.03 Dewatering Time (days)
Suggest about 3 days

Q10 = C I A = .35 x 7.04 in/hr x 3.58 acres

Okay
Okay

Skimmer Size (inches)
1.5
2
2.5
3
4
5
6
8

Top = 594.00
Weir = 593.00
Water = 592.00

Bottom = 588.50

Diagram dimensions:
- Top = 592.00
- Weir = 593.00
- Water = 594.00

Diagram distances:
- 76' top
- 38' side
- 5' bottom
- 2' depth

Diagram orientation:
- NTS
### Skimmer Basin #12

**Okay**

- **Disturbed Area (Acres)**: 7.7
- **Peak Flow from 10-year Storm (cfs)**: 18.97
- **Required Volume ft³**: 13860
- **Required Surface Area ft²**: 6166
- **Suggested Width ft**: 55.5
- **Suggested Length ft**: 111.1
- **Trial Top Width at Spillway Invert ft**: 56
- **Trial Top Length at Spillway Invert ft**: 111
- **Trial Side Slope Ratio Z:1**: 2
- **Trial Depth ft** (2 to 3.5 feet above grade): 3.5
- **Bottom Width ft**: 38
- **Bottom Length ft**: 93
- **Bottom Area ft²**: 3534
- **Actual Volume ft³**: 16874
- **Actual Surface Area ft²**: 6216
- **Trial Weir Length ft**: 7
- **Trial Depth of Flow ft**: 1
- **Spillway Capacity cfs**: 21.0
- **Skimmer Size (inches)**: 3
- **Head on Skimmer (feet)**: 0.25
- **Orifice Size (1/4 inch increments)**: 2
- **Dewatering Time (days)**: 3.00

**Suggest about 3 days**

### Diagram

```
      111'
     /   
  56'   5'  
     /   
   2   2

Top = 588.00
Weir = 587.00
Water = 586.00
```

**NTS**

**586 Water Surface Elev.**

**Q10 = C IA = .35 x 7.04 in/hr x 7.7 acres**
Skimmer Basin #13

Okay

3.45 Disturbed Area (Acres)
8.50 Peak Flow from 10-year Storm (cfs)

6210 Required Volume ft³
2763 Required Surface Area ft²
37.2 Suggested Width ft
74.3 Suggested Length ft

37 Trial Top Width at Spillway Invert ft
75 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3 Trial Depth ft (2 to 3.5 feet above grade)
25 Bottom Width ft
63 Bottom Length ft
1575 Bottom Area ft²
6453 Actual Volume ft³
2775 Actual Surface Area ft²

9 Trial Weir Length ft
0.5 Trial Depth of Flow ft
9.5 Spillway Capacity cfs

2 Skimmer Size (inches)
0.167 Head on Skimmer (feet)
1.5 Orifice Size (1/4 inch increments)
2.92 Dewatering Time (days)
Suggest about 3 days

NTS

75'

37'

2

Bottom = 591.00

Top = 595.50
Weir = 594.50
Water = 594.00

Q = 0.35 x 7.04 in/hr x 3.45 ac

595 Water Surface Elev.
Skimmer Basin #14

<table>
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<th>Value</th>
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| Disturbed Area (Acres) | 4.28
| Peak Flow from 10-year Storm (cfs) | 10.55
| Required Volume ft³ | 7704
| Required Surface Area ft² | 3427
| Suggested Width ft | 41.4
| Suggested Length ft | 82.8
| Trial Top Width at Spillway Invert ft | 36
| Trial Top Length at Spillway Invert ft | 108
| Trial Side Slope Ratio Z:1 | 2
| Trial Depth ft | 24
| (2 to 3.5 feet above grade) |
| Bottom Width ft | 24
| Bottom Length ft | 88
| Bottom Area ft² | 2112
| Actual Volume ft³ | 8496
| Actual Surface Area ft² | 3600
| Trial Weir Length ft | 1.1
| Trial Depth of Flow ft | 0.5
| Spillway Capacity cfs | 11.7
| Skimmer Size (inches) | 3
| Head on Skimmer (feet) | 0.25
| Orifice Size (1/4 inch increments) | 1.5
| Dewatering Time (days) | 2.96

Q10 = CI A = .35 x 7.04 in/hr x 4.28 acres

---

### Diagram

- Top: 606.00
- Weir: 605.00
- Water: 604.50
- Bottom: 601.50

---

<table>
<thead>
<tr>
<th>Skimmer Size (Inches)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
Skimmer Basin #15

Okay

8.52 Disturbed Area (Acres)
20.99 Peak Flow from 10-year Storm (cfs)

15336 Required Volume ft³
6823 Required Surface Area ft²
58.4 Suggested Width ft
116.8 Suggested Length ft

60 Trial Top Width at Spillway Invert ft
117 Trial Top Length at Spillway Invert ft
3 Trial Side Slope Ratio Z:1
3.5 Trial Depth ft (2 to 3.5 feet above grade)
39 Bottom Width ft
96 Bottom Length ft
3744 Bottom Area ft²
18580 Actual Volume ft³
7020 Actual Surface Area ft²

Okay

Okay

Okay

8 Trial Weir Length ft
1 Trial Depth of Flow ft
24.0 Spillway Capacity cfs

5 Skimmer Size (inches)
0.333 Head on Skimmer (feet)
1.72 Orifice Size (1/4 inch increments)
3.76 Dewatering Time (days)
Suggest about 3 days

Q10 = C IA = .35 x 7.04 in/hr x 8.52 acres

Top = 595.50
Weir = 594.50
Water = 593.50

Bottom = 590.00

117'
60'
5'
3
Skimmer Basin #16

Okay

3.29 Disturbed Area (Acres)
8.11 Peak Flow from 10-year Storm (cfs)

5922 Required Volume ft³
2635 Required Surface Area ft²
36.3 Suggested Width ft
72.6 Suggested Length ft

40 Trial Top Width at Spillway Invert ft
75 Trial Top Length at Spillway Invert ft
3 Trial Side Slope Ratio Z:1
2 Trial Depth ft (2 to 3.5 feet above grade)
22 Bottom Width ft
57 Bottom Length ft
1254 Bottom Area ft²
6219 Actual Volume ft³
3000 Actual Surface Area ft²

Okay

Okay

3 Trial Weir Length ft
1 Trial Depth of Flow ft
9.0 Spillway Capacity cfs

Okay

2 Skimmer Size (inches)
0.167 Head on Skimmer (feet)
1.5 Orifice Size (1/4 inch increments)
2.79 Dewatering Time (days)
  Suggest about 3 days

Q10 = C / A = .35 x 7.04 in/hr x 3.29 acres

Top = 576.00
Weir = 575.00
Water = 574.00

Bottom = 571.00
**Skimmer Basin #17**

<table>
<thead>
<tr>
<th>4.51</th>
<th>Disturbed Area (Acres)</th>
</tr>
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<tr>
<td>11.11</td>
<td>Peak Flow from 10-year Storm (cfs)</td>
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<tr>
<td>8118</td>
<td>Required Volume ft³</td>
</tr>
<tr>
<td>3612</td>
<td>Required Surface Area ft²</td>
</tr>
<tr>
<td>42.5</td>
<td>Suggested Width ft</td>
</tr>
<tr>
<td>85.0</td>
<td>Suggested Length ft</td>
</tr>
</tbody>
</table>

- **50** Trial Top Width at Spillway Invert ft
- **73** Trial Top Length at Spillway Invert ft
- **3** Trial Side Slope Ratio Z:1
- **3** Trial Depth ft (2 to 3.5 feet above grade)
- **32** Bottom Width ft
- **57** Bottom Length ft
- **1824** Bottom Area ft²
- **8199** Actual Volume ft³
- **3750** Actual Surface Area ft²

- **4** Trial Weir Length ft
- **1** Trial Depth of Flow ft
- **12.0** Spillway Capacity cfs

<table>
<thead>
<tr>
<th>3</th>
<th>Skimmer Size (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>Head on Skimmer (feet)</td>
</tr>
<tr>
<td>1.5</td>
<td>Orifice Size (1/4 inch increments)</td>
</tr>
<tr>
<td>3.12</td>
<td>Dewatering Time (days)</td>
</tr>
</tbody>
</table>

Suggest about 3 days

**Skimmer Size (Inches):**

- 1.5
- 2
- 2.5
- 3
- 4
- 5
- 6
- 8

**Top = 625.00**

**Weir = 624.00**

**Water = 623.00**

**Bottom = 620.00**

**623 Water Surface Elev.**

Q10 = C | A = .35 x 7.04 in/hr x 4.51 acres
### Skimmer Basin #18

**Okay**

- **2.51** Disturbed Area (Acres)
- **6.18** Peak Flow from 10-year Storm (cfs)
- **4518** Required Volume ft³
- **2010** Required Surface Area ft²
- **31.7** Suggested Width ft
- **63.4** Suggested Length ft

- **35** Trial Top Width at Spillway Invert ft
- **67** Trial Top Length at Spillway Invert ft
- **3** Trial Side Slope Ratio 2:1
- **17** Trial Depth ft (2 to 3.5 feet above grade)
- **49** Bottom Width ft
- **833** Bottom Area ft²
- **4605** Actual Volume ft³
- **2345** Actual Surface Area ft²
- **6** Trial Weir Length ft
- **0.5** Trial Depth of Flow ft
- **6.4** Spillway Capacity cfs

- **2** Skimmer Size (inches)
- **0.167** Head on Skimmer (feet)
- **1.75** Orifice Size (1/4 inch increments)
- **3.06** Dewatering Time (days)  
  Suggest about 3 days

![Diagram](attachment:image.png)

- **Top = 625.00**
- **Weir = 624.00**
- **Water = 623.50**

**Q10 = C I A = \(0.35 \times 7.04 \text{ in/hr} \times 2.51 \text{ acres}\)**
**Skimmer Basin #19**

<table>
<thead>
<tr>
<th>4.34</th>
<th>Disturbed Area (Acres)</th>
</tr>
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<tbody>
<tr>
<td>10.66</td>
<td>Peak Flow from 10-year Storm (cfs)</td>
</tr>
<tr>
<td>7812</td>
<td>Required Volume ft³</td>
</tr>
<tr>
<td>3475</td>
<td>Required Surface Area ft²</td>
</tr>
<tr>
<td>41.7</td>
<td>Suggested Width ft</td>
</tr>
<tr>
<td>83.4</td>
<td>Suggested Length ft</td>
</tr>
</tbody>
</table>

- **Trial Top Width at Spillway Invert ft**: 42
- **Trial Top Length at Spillway Invert ft**: 82
- **Trial Side Slope Ratio Z:1**: 3
- **Trial Depth ft**: 24
- **Bottom Width ft**: 70
- **Bottom Length ft**: 1680
- **Bottom Area ft²**: 7902
- **Actual Volume ft³**: 3696

- **Actual Surface Area ft²**: 3696
- **Trial Weir Length ft**: 11
- **Trial Depth of Flow ft**: 0.5
- **Spillway Capacity cfs**: 11.7

- **Skimmer Size (inches)**: 1.5
- **Head on Skimmer (feet)**: 0.125
- **Orifice Size (1/4 inch increments)**: 1.75
- **Dewatering Time (days)**: 3.12

Suggest about 3 days

**Skimmer Size (inches)**

<table>
<thead>
<tr>
<th>Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

**Top = 627.50**

**Weir = 626.50**

**Water = 626.00**
Skimmer Basin #20

Okay

2.85  Disturbed Area (Acres)
8.08  Peak Flow from 10-year Storm (cfs)

5130  Required Volume ft$^3$
2627  Required Surface Area ft$^2$
36.2  Suggested Width ft
72.5  Suggested Length ft

40  Trial Top Width at Spillway Invert ft
68  Trial Top Length at Spillway Invert ft
2  Trial Side Slope Ratio Z:1
3  Trial Depth ft  (2 to 3.5 feet above grade)
28  Bottom Width ft
56  Bottom Length ft
1568  Bottom Area ft$^2$
6360  Actual Volume ft$^3$
2720  Actual Surface Area ft$^2$

8  Trial Weir Length ft
0.5  Trial Depth of Flow ft
8.5  Spillway Capacity cfs

2  Skimmer Size (inches)
0.167  Head on Skimmer (feet)
1.25  Orifice Size (1/4 inch increments)
3.48  Dewatering Time (days)

Suggest about 3 days

Q10 = C I A = .35 x 7.04 in/hr x 3.28 acres

Top = 617.50
Weir = 616.50
Water = 616.00

Bottom = 613.00

68'
40'
5'

NTS
# Skimmer Basin #21

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Disturbed Area (Acres)</td>
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<tr>
<td>Peak Flow from 10-year Storm (cfs)</td>
<td>6.06</td>
</tr>
<tr>
<td>Required Volume ft³</td>
<td>4428</td>
</tr>
<tr>
<td>Required Surface Area ft²</td>
<td>1970</td>
</tr>
<tr>
<td>Suggested Width ft</td>
<td>31.4</td>
</tr>
<tr>
<td>Suggested Length ft</td>
<td>62.8</td>
</tr>
<tr>
<td>Trial Top Width at Spillway Invert ft</td>
<td>32</td>
</tr>
<tr>
<td>Trial Top Length at Spillway Invert ft</td>
<td>63</td>
</tr>
<tr>
<td>Trial Side Slope Ratio Z:1</td>
<td>2</td>
</tr>
<tr>
<td>Trial Depth ft (2 to 3.5 feet above grade)</td>
<td></td>
</tr>
<tr>
<td>Bottom Width ft</td>
<td>20</td>
</tr>
<tr>
<td>Bottom Length ft</td>
<td>51</td>
</tr>
<tr>
<td>Bottom Area ft²</td>
<td>1020</td>
</tr>
<tr>
<td>Actual Volume ft³</td>
<td>4482</td>
</tr>
<tr>
<td>Actual Surface Area ft²</td>
<td>2016</td>
</tr>
<tr>
<td>Trial Weir Length ft</td>
<td>6</td>
</tr>
<tr>
<td>Trial Depth of Flow ft</td>
<td>0.5</td>
</tr>
<tr>
<td>Spillway Capacity cfs</td>
<td>6.4</td>
</tr>
<tr>
<td>Skimmer Size (inches)</td>
<td>3</td>
</tr>
<tr>
<td>Head on Skimmer (feet)</td>
<td>0.167</td>
</tr>
<tr>
<td>Orifice Size (1/4 inch increments)</td>
<td>1.25</td>
</tr>
<tr>
<td>Dewatering Time (days)</td>
<td>3.00</td>
</tr>
</tbody>
</table>

**Q10 = C / A = 0.35 x 7.04 in/hr x 2.46 acres**

**Notes:**
- Okay
- 63'-5' = 617.5 ft
- Top = 619.00
- Weir = 618.00
- Water = 617.50
- Bottom = 614.50
- Suggest about 3 days

---

*NTS*
Skimmer Basin #22

Okay

1.38 Disturbed Area (Acres)
3.42 Peak Flow from 10-year Storm (cfs)

2502 Required Volume ft³
1113 Required Surface Area ft²
23.6 Suggested Width ft
47.2 Suggested Length ft

25 Trial Top Width at Spillway Invert ft
60 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3 Trial Depth ft (2 to 3.5 feet above grade)
13 Bottom Width ft
38 Bottom Length ft
494 Bottom Area ft²
2544 Actual Volume ft³
1250 Actual Surface Area ft²

Okay

4 Trial Weir Length ft
0.5 Trial Depth of Flow ft
4.2 Spillway Capacity cfs

Okay

1.5 Skimmer Size (inches)
0.125 Head on Skimmer (feet)
1 Orifice Size (1/4 inch increments)
3.06 Dewatering Time (days)
Suggest about 3 days

Q10 = C I A = .35 x 7.04 in/hr x 1.39 acres

03/19/19 KCG
**Skimmer Basin #23**

**Okay**

<table>
<thead>
<tr>
<th>Calculation</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Disturbed Area (Acres)</td>
<td>6.15</td>
</tr>
<tr>
<td>Peak Flow from 10-year Storm (cfs)</td>
<td>15.15</td>
</tr>
<tr>
<td>Required Volume ft³</td>
<td>11070</td>
</tr>
<tr>
<td>Required Surface Area ft²</td>
<td>4925</td>
</tr>
<tr>
<td>Suggested Width ft</td>
<td>49.6</td>
</tr>
<tr>
<td>Suggested Length ft</td>
<td>99.2</td>
</tr>
<tr>
<td>Trial Top Width at Spillway Invert ft</td>
<td>50</td>
</tr>
<tr>
<td>Trial Top Length at Spillway Invert ft</td>
<td>100</td>
</tr>
<tr>
<td>Trial Side Slope Ratio Z:1</td>
<td>2</td>
</tr>
<tr>
<td>Trial Depth ft</td>
<td>3</td>
</tr>
<tr>
<td>(2 to 3.5 feet above grade)</td>
<td></td>
</tr>
<tr>
<td>Bottom Width ft</td>
<td>38</td>
</tr>
<tr>
<td>Bottom Length ft</td>
<td>88</td>
</tr>
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<td>Bottom Area ft²</td>
<td>3344</td>
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<td>Actual Volume ft³</td>
<td>12444</td>
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<tr>
<td>Actual Surface Area ft²</td>
<td>5000</td>
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<td>Trial Weir Length ft</td>
<td>15</td>
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<tr>
<td>Trial Depth of Flow ft</td>
<td>0.5</td>
</tr>
<tr>
<td>Spillway Capacity cfs</td>
<td>17.0</td>
</tr>
<tr>
<td>Skimmer Size (inches)</td>
<td>3</td>
</tr>
<tr>
<td>Head on Skimmer (feet)</td>
<td>0.25</td>
</tr>
<tr>
<td>Orifice Size (1/4 inch increments)</td>
<td>1.75</td>
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<tr>
<td>Dewatering Time (days)</td>
<td>3.13</td>
</tr>
<tr>
<td>Suggest about 3 days</td>
<td></td>
</tr>
</tbody>
</table>

**Q10** = C | A = .35 x 7.04 in/hr x 6.15 acres

---

**Diagram:**

- Top = 606.50
- Weir = 605.50
- Water = 605.00
- Bottom = 602.00

**Skimmer Size (inches):**

- 1.5
- 2
- 2.5
- 3
- 4
- 5
- 6
- 8
**Skimmer Basin #24**

<table>
<thead>
<tr>
<th>Parameter</th>
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<tbody>
<tr>
<td>Disturbed Area (Acres)</td>
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<tr>
<td>Peak Flow from 10-year Storm (cfs)</td>
<td>16.30</td>
</tr>
<tr>
<td>Required Volume ft³</td>
<td>11970</td>
</tr>
<tr>
<td>Required Surface Area ft²</td>
<td>5325</td>
</tr>
<tr>
<td>Suggested Width ft</td>
<td>51.6</td>
</tr>
<tr>
<td>Suggested Length ft</td>
<td>103.2</td>
</tr>
<tr>
<td>Trial Top Width at Spillway Invert ft</td>
<td>50</td>
</tr>
<tr>
<td>Trial Top Length at Spillway Invert ft</td>
<td>107</td>
</tr>
<tr>
<td>Trial Side Slope Ratio Z:1</td>
<td>2</td>
</tr>
<tr>
<td>Trial Depth ft (2 to 3.5 feet above grade)</td>
<td>3</td>
</tr>
<tr>
<td>Bottom Width ft</td>
<td>38</td>
</tr>
<tr>
<td>Bottom Length ft</td>
<td>95</td>
</tr>
<tr>
<td>Bottom Area ft²</td>
<td>3610</td>
</tr>
<tr>
<td>Actual Volume ft³</td>
<td>13368</td>
</tr>
<tr>
<td>Actual Surface Area ft²</td>
<td>5350</td>
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<tr>
<td>Trial Weir Length ft</td>
<td>16</td>
</tr>
<tr>
<td>Trial Depth of Flow ft</td>
<td>0.5</td>
</tr>
<tr>
<td>Spillway Capacity cfs</td>
<td>17.0</td>
</tr>
<tr>
<td>Skimmer Size (inches)</td>
<td>3</td>
</tr>
<tr>
<td>Head on Skimmer (feet)</td>
<td>0.25</td>
</tr>
<tr>
<td>Orifice Size (1/4 inch increments)</td>
<td>1.75</td>
</tr>
<tr>
<td>Dewatering Time (days)</td>
<td>3.38</td>
</tr>
</tbody>
</table>

Skimmer Size (Inches):
- 1.5
- 2
- 2.5
- 3
- 4
- 5
- 6
- 8

Q10 = C I A = .35 x 7.04 in/hr x 6.65 acres

**Diagram:**
- Top = 624.50
- Weir = 623.50
- Water = 623.00
- Bottom = 620.00
Skimmer Basin #25

Okay

1.6 Disturbed Area (Acres)
3.94 Peak Flow from 10-year Storm (cfs)

2880 Required Volume ft³
1281 Required Surface Area ft²
25.3 Suggested Width ft
50.6 Suggested Length ft

25 Trial Top Width at Spillway Invert ft
56 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3 Trial Depth ft (2 to 3.5 feet above grade)
13 Bottom Width ft
44 Bottom Length ft
572 Bottom Area ft²
2886 Actual Volume ft³
1400 Actual Surface Area ft²

4 Trial Weir Length ft
0.5 Trial Depth of Flow ft
4.2 Spillway Capacity cfs

3 Skimmer Size (inches)
0.167 Head on Skimmer (feet)
1 Orifice Size (1/4 inch increments)
3.05 Dewatering Time (days)
   Suggest about 3 days

Q10 = C I A = .35 x 7.04 in/hr x 1.60 acres

05/02/19 PAS

Top = 636.50
Weir = 635.50
Water = 635.00

Bottom = 632.00
Skimmer Basin #26

6.79 Disturbed Area (Acres)
16.73 Peak Flow from 10-year Storm (cfs)

12222 Required Volume ft³
5437 Required Surface Area ft²
52.1 Suggested Width ft
104.3 Suggested Length ft

53 Trial Top Width at Spillway Invert ft
105 Trial Top Length at Spillway Invert ft
2 Trial Side Slope Ratio Z:1
3 Trial Depth ft (2 to 3.5 feet above grade)
41 Bottom Width ft
93 Bottom Length ft
3813 Bottom Area ft²
13995 Actual Volume ft³
5565 Actual Surface Area ft²

16 Trial Weir Length ft
0.5 Trial Depth of Flow ft
17.0 Spillway Capacity cfs

3 Skimmer Size (inches)
0.25 Head on Skimmer (feet)
1.75 Orifice Size (1/4 inch increments)
3.46 Dewatering Time (days)
Suggest about 3 days

Q10 = C I A = .35 x 7.04 in/hr x 6.79 acres

Top = 619.50
Weir = 618.50
Water = 618.00

Bottom = 615.00
**Skimmer Basin #27**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disturbed Area (Acres)</td>
<td>3.33</td>
</tr>
<tr>
<td>Peak Flow from 10-year Storm (cfs)</td>
<td>8.21</td>
</tr>
<tr>
<td>Required Volume ft³</td>
<td>5994</td>
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<tr>
<td>Required Surface Area ft²</td>
<td>2667</td>
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<tr>
<td>Suggested Width ft</td>
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<tr>
<td>Suggested Length ft</td>
<td>73.0</td>
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<tr>
<td>Trial Top Width at Spillway Invert ft</td>
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<td>Trial Top Length at Spillway Invert ft</td>
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<tr>
<td>Trial Side Slope Ratio Z:1</td>
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</tr>
<tr>
<td>Trial Depth ft (2 to 3.5 feet above grade)</td>
<td>3</td>
</tr>
<tr>
<td>Bottom Width ft</td>
<td>22</td>
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<td>Bottom Length ft</td>
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<tr>
<td>Bottom Area ft²</td>
<td>1496</td>
</tr>
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<td>Actual Volume ft³</td>
<td>6252</td>
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<tr>
<td>Actual Surface Area ft²</td>
<td>2720</td>
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<td>Trial Weir Length ft</td>
<td>8</td>
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<tr>
<td>Head on Skimmer (feet)</td>
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<tr>
<td>Orifice Size (1/4 inch increments)</td>
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<tr>
<td>Dewatering Time (days)</td>
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</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Q10 = C I A = .35 x 7.04 in/hr x 3.33 acres

![Diagram of Skimmer Basin #27](image)

Top = 623.50
Weir = 622.50
Water = 622.00

Bottom = 619.00