



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATERSHED RESTORATION AND
NONPOINT SOURCE MANAGEMENT

SAMPLE

T. AMDTreat – Aerobic Wetlands Form

Company Name

Project Little Anderson CreekSite Name Korb4

Printed on 06/03/2020



AMD TREAT

- 8 -

AEROBIC WETLANDS

AMDTREAT

Aerobic Wetlands Name

☐ Opening Screen
Water Parameters
Influent Water
Parameters
that Affect
Aerobic Wetlands

Calculated Acidity

261.86 mg/L

Alkalinity

110.00 mg/L

☒ Calculate Net
Acidity
(Acid-Alkalinity)

☐ Enter Net Acidity
manually
Net Acidity
(Hot Acidity)

151.86 mg/L

Design Flow

170.00 gpm

Typical Flow

89.00 gpm

Total Iron

23.00 mg/L

Aluminum

20.00 mg/L

Manganese

5.30 mg/L

pH

7.50 su

SIZING METHODS Select One

☐ Aerobic Wetland Based on Metal Removal Rates

1. Iron Removal Rate

g/m2/day

2. Mn Removal Rate

g/m2/day

☒ Aerobic Wetland Based on Dimensions

3. Top Length at Freeboard

370 ft

4. Top Width at Freeboard

139 ft

☐ Aerobic Wetland Based on Iron Oxidation Kinetics

5. Rate Constant

moles/sec

6. Effluent Fe Concentration

mg/l

7. Dissolved Oxygen

mg/l

8. H2O Temperature

°C

9. Length to Width Ratio

Length : Width

10. Slope of Wetland Sides

Run of Slope : Rise of Slope

3.0 : 1.000

11. Freeboard Depth

2.00 ft

12. Free Standing Water Depth

0.50 ft

13. Organic Matter Depth

1.00 ft

14. Organic Matter Unit Cost

20.00 \$/yd3

15. Organic Matter Spreading Unit Cost

4.50 \$/yd3

16. Excavation Unit Cost

5.50 \$/yd3

17. Wetland Planting Unit Cost

3700 \$/acre

Liner Cost

☒ No Liner

☐ Clay Liner

18. Clay Liner Unit Cost

\$/yd3

19. Thickness of Clay Liner

ft

☐ Synthetic Liner

20. Synthetic Liner Unit Cost

\$/yd2

☒ 21. Clearing and Grubbing?

☒ 22. Land Multiplier

1.5 ratio

☐ 23. Clear/Grub Acres

acres

24. Clear and Grub Unit Cost

2500 \$/acre

Aerobic Wetland Sizing Summaries

25. Length at Top of Freeboard	370.00	ft
26. Width at Top of Freeboard	139.00	ft
27. Freeboard Volume	3,586	yd3
28. Water Surface Area	45,466	ft2
29. Water Volume	828	yd3
30. Organic Matter Volume	1,577	yd3
31. Excavation Volume	2,406	yd3
32. Clear and Grub Area	1.7	acres
33. Liner Area	0	ft2
34. Retention Time	16	hrs

Aerobic Cost Summaries

35. Organic Matter Cost	38,651	\$
36. Excavation Cost	13,234	\$
37. Liner Cost	0	\$
38. Clear and Grub Cost	4,428	\$
39. Wetland Planting Cost	4,368	\$

40. Total Cost

60,681 \$

Record Number 1 of 1