# COMMONWEALTH OF VIRGINIA VIRGINIA DEPARTMENT OF ENERGY MINED LAND REPURPOSING

3405 MOUNTAIN EMPIRE ROAD; BIG STONE GAP, VA 24219 TELEPHONE: (276) 523-8100

SEDIMENT BASIN DESIGN DATA SHEET

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| **COMPANY** |  | **Application/Permit No.** |  |

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| **BASIN NO.** |  | NPDES No. |  | Latitude |  | Longitude |  |
| **GENERAL INFORMATION** |
| Hazard Classification |  |  |
| Total Drainage Area ( acres) |  | Design Flow (cfs) |  |
| Total Disturbed Drainage Area (acres) |  | Design Storm Event (year/hour) |  |
| Total Disturbed Area to be Treated by Basin (acres) |  |  |
| Required Basin Volume1 (ac-ft) |  | Required Sediment Volume 2 (ac-ft) |  |
| Basin Volume Provided (ac-ft) |  | Sediment Volume Provided (ac-ft) |  |

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| **BASIN GEOMETRY** |
|  | Bottom | Sediment Volume Provided | Basin Volume Provided | Emergency Spillway | Top |
| Elevation (ft.) |  |  |  |  |  |
| Area (ft ) |  |  |  |  |  |

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| **PRINCIPAL SPILLWAY** (if applicable) |
| Pipe Diameter (in.) |  | Pipe Length (ft.) |  | Pipe Inlet Elevation (ft.) |  | Slope % |  |
| Riser Diameter (in.) |  | Height of Riser3(ft.) |  | Top of Riser Elevation (ft.) |  | Hp4(ft.) |  |
| Type of Base |  | Type of Trash Rack & Anti-vortex device |  |

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| **EMERGENCY SPILLWAY** (if applicable) |
| Hp 4(ft.) |  | Bottom Width (ft.) |  | Side Slopes (H:V) |  |  |
| Design Velocity (fps) |  | Type of Lining |  |

1 (0.125 X disturbed area in acres) 2 (0.075 X disturbed area in acres) 3 Base to top of riser

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| **EXIT CHANNEL** (if applicable) |
| Slope (%) |  | Bottom Width (ft.) |  | Side Slopes (H:V) |  |
| Flow Depth (ft.) |  | Freeboard (ft.) |  | Total Depth Exit Channel (ft.) |  |
| Design Velocity (fps) |  | Type of Lining |  |

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| **EMBANKMENT** (if applicable) |
| Top of Embankment Elevation5 (ft.) |  | Constructed Top of Embankment Elevation6 (ft.) |  |

**COMMENTS**

5 Top of Embankment Elevation = Emergency Spillway Elevation + Hp + Freeboard (1 ft. minimum)