

Mining Water Management Checklist

Water Source Assessment

Evaluate the quality and quantity of water sources used in mining operations.

Water Source Flow Rate (m³/hr)

Water Source Type

- ☐ River
- ☐ Groundwater Well
- ☐ Reservoir
- ☐ Stormwater
- ☐ Other

Water Source Depth (m)

Water Quality Category

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Last Water Quality Testing Date

Enter date...

Observations and Notes on Water Source

Write something...

Surface Water Discharge Monitoring

Track and analyze the impact of mining activities on surface water bodies.

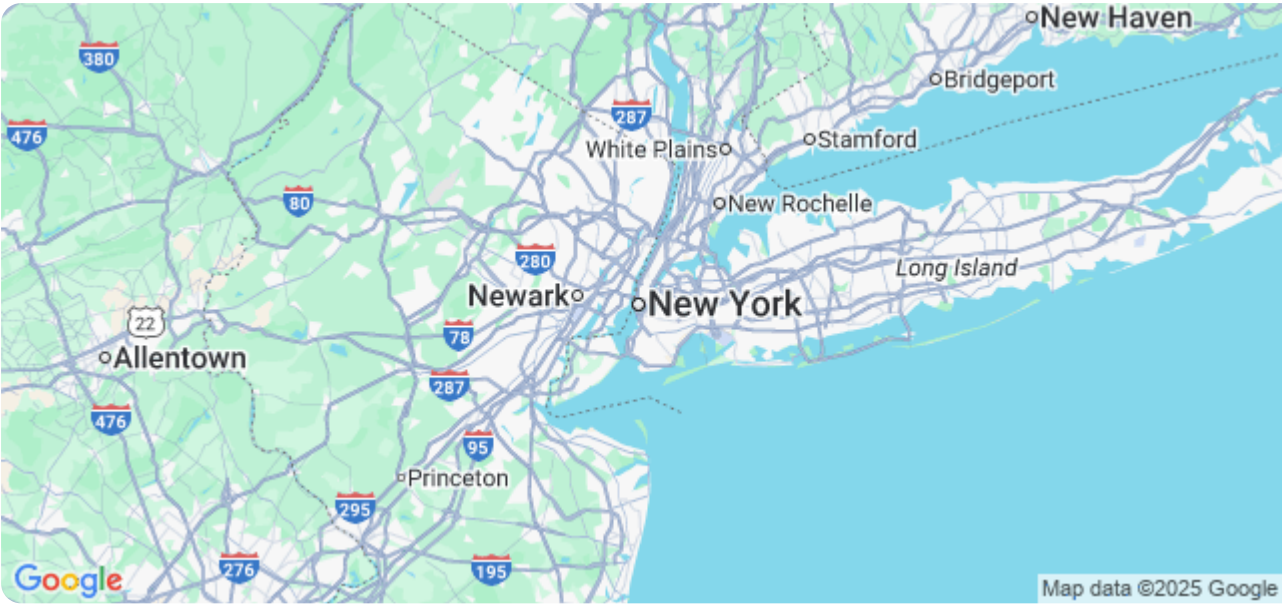
Date of Monitoring

Enter date...

Time of Sampling

Discharge Point GPS Coordinates

 Set My Current Location



pH Level

Enter a number...

Turbidity (NTU)

Enter a number...

Total Suspended Solids (TSS) (mg/L)

Enter a number...

Electrical Conductivity ($\mu\text{S}/\text{cm}$)

Enter a number...

Water Appearance (Visual)

- ☐ Clear
- ☐ Slightly Cloudy
- ☐ Cloudy
- ☐ Milky
- ☐ Oily

Additional Observations/Comments

Write something...

Groundwater Monitoring

Monitor groundwater levels, quality, and potential contamination.

Well Static Water Level (m)

Enter a number...

Well Pumping Rate (m³/hr)

Enter a number...

pH

Enter a number...

Electrical Conductivity ($\mu\text{S}/\text{cm}$)

Enter a number...

Temperature ($^{\circ}\text{C}$)

Enter a number...

Water Appearance

- ☐ Clear
- ☐ Cloudy
- ☐ Milky
- ☐ Oily

Monitoring Date

Enter date...

Monitoring Time

Comments/Observations

Write something...

Sediment and Erosion Control

Assess the effectiveness of sediment and erosion control measures.

Runoff Coefficient (C-Factor)

Enter a number...

Vegetation Cover Type

- ☐ Sparse
- ☐ Moderate
- ☐ Dense
- ☐ Absent

Slope Gradient (Degrees)

Enter a number...

Observations of Erosion Features (Rills, Gullies)

Write something...

Silt Fence Condition

- ☐ Intact
- ☐ Minor Damage
- ☐ Major Damage
- ☐ Missing

Photographic Evidence of Erosion Control Measures

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Sediment Pond Depth (meters)

Enter a number...

Water Treatment & Recycling

Verify proper functioning and efficiency of water treatment and recycling systems.

Influent pH (units)

Enter a number...

Effluent pH (units)

Enter a number...

Turbidity (NTU)

Enter a number...

Total Suspended Solids (TSS) (mg/L)

Enter a number...

Treatment Method Used

- ☐ Chemical Precipitation
- ☐ Reverse Osmosis
- ☐ Filtration
- ☐ Other

Date of Treatment Process Monitoring

Time of Treatment Process Monitoring

Any unusual observations during treatment process

Dam Safety Inspection

Inspect tailings dams and other water storage facilities for structural integrity and safety.

Inspection Date

Dam Height (meters)

Reservoir Water Level (meters)

Dam Settlement (mm)

Enter a number...

Visible Cracks Observed?

- ☐ Yes
- ☐ No
- ☐ Uncertain

Seepage Observed?

- ☐ Yes
- ☐ No
- ☐ Uncertain

Additional Observations

Write something...

Inspector Signature

Supporting Photos/Documents

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Spill Prevention & Response

Review spill prevention plans and response procedures for chemical storage and handling.

Chemical Storage Tank Volume (Gallons)

Enter a number...

Secondary Containment Present?

☐ Yes

☐ No

☐ N/A

Last Spill Prevention Plan Review Date

Enter date...

Time of Last Leak Test Performed

Description of Spill Prevention Measures in Place

Write something...

Attach MSDS/SDS for Hazardous Chemicals

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Employee Training Records Up-to-Date?

- ☐ Yes
- ☐ No
- ☐ N/A

Summary of any recent near-miss or spill incidents

Write something...

Water Licensing & Permits

Confirm compliance with water licenses, permits, and reporting requirements.

Permit Expiration Date

Enter date...

Permit Status (Active/Expired/Suspended)

- ☐ Active
- ☐ Expired
- ☐ Suspended

Permit Volume Allocation (m3/day)

Enter a number...

Permit Conditions & Limitations

Write something...

Copy of Water License/Permit

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Reporting Frequency (as per permit)

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Quarterly

Last Permit Compliance Report Submission Date

Enter date...

Drainage Management

Evaluate the management of mine drainage to prevent environmental impact.

Surface Water Flow Rate (m^3/s)

Enter a number...

Groundwater Inflow Rate (m^3/s)

Enter a number...

Drainage System Condition

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Observations on Drainage System Performance

Write something...

Last Maintenance Date

Enter date...

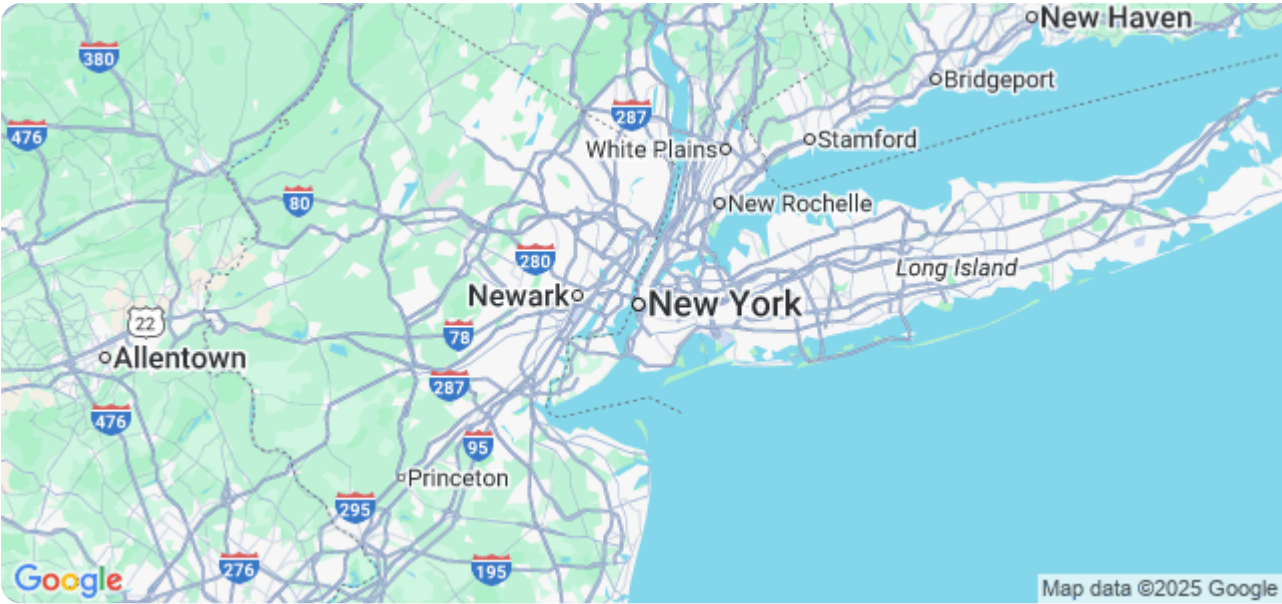
Time of Peak Flow (if applicable)

Potential Contributing Factors to Drainage Issues

- ☐ Heavy Rainfall
- ☐ Geological Conditions
- ☐ Equipment Failure
- ☐ Poor Design
- ☐ Other (Specify in Long Text)

Location of Drainage Issue (if applicable)

 Set My Current Location



Rehabilitation and Closure

Assess water management strategies for rehabilitation and closure of mining sites.

Planned Completion Date of Water Treatment System Removal

Enter date...

Volume of Water to be Treated Post-Closure (m³)

Enter a number...

Description of Long-Term Water Monitoring Plan

Write something...

Which of the following water management strategies are incorporated into the closure plan?

- ☐ Passive Treatment
- ☐ Active Treatment
- ☐ Natural Attenuation
- ☐ Groundwater Containment

Water Quality Modeling Report

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Is the area deemed stable for long-term water management?

- ☐ Yes
- ☐ No
- ☐ Uncertain

Describe any potential risks associated with long-term water management.

Write something...