



STORMWATER MANAGEMENT PLAN - CONTENTS AND REQUIREMENTS

METAL MINING OPERATIONS AND MINE-WASTE REMEDIATION

A Stormwater Management Plan (SWMP) shall be developed for the portion of the facility covered by this application. The SWMP shall be prepared in accordance with good engineering practices. (The plan need not be completed by a registered engineer.)

The plan shall identify potential sources of pollution (including sediment) which may reasonably be expected to affect the quality of stormwater discharges associated with the mining operation. In addition, the plan shall describe and ensure the implementation of best management practices (BMPs) which will be used to reduce the pollutants in stormwater discharges associated with mining activity.

As a part of this application, active and inactive mining operations must certify the completion of the SWMP required under this part. **All mining operations must implement the provisions of their SWMP as a condition of their permit.** The Division reserves the right to request and review the plans, and to require additional measures to prevent and control pollution, as needed.

The SWMP shall include the following items, at a minimum. **Note that requirements vary slightly for active and inactive mines.**

1. **Description of Mining Activities**

The plan shall provide a narrative description of the mining and associated activities taking place at the site which affect or may affect stormwater runoff intended to be covered by this permit. The narrative description shall report the total acreage within the mine site and an estimate of the number of acres of disturbed area. A general description of the location of the mining site relative to major transportation routes and communities shall also be provided.

2. **Area Subject to Effluent Limitations Guidelines**

Each plan shall describe the portion of the mining site (if any) which contributes runoff to areas subject to effluent limitations guidelines contained in 40 CFR subchapter N. *(This requirement may not be fully applicable for some inactive mines.)*

3. **Site Map**

Each plan shall provide a site map or maps which indicate at a minimum:

- mining/milling site boundaries and access and haul roads;
- equipment storage, fueling and maintenance areas;
- materials handling areas;
- areas used for storage of overburden, materials, soils or wastes;
- areas used for outdoor manufacturing, heap leach pads, storage or disposal of materials;
- location of mine drainage or any other process water;
- tailings piles/ponds, both new and pre-existing;
- mine drainage or any other process water discharge points;
- existing structural control measures to reduce pollutants in stormwater runoff;
- springs, streams, wetlands and other surface waters; and
- boundary of area that contributes runoff to outfalls that are subject to effluent limitations guidelines.
- all areas of soil disturbance

For active mines, for those areas outside of the area that contributes runoff to outfalls that are subject to effluent limitations guidelines:

- an estimate of the direction(s) of surface flow;
- stormwater outfalls and an approximate outline of the areas draining to each outfall;
- each existing and new structural control measure to reduce pollutants in stormwater runoff;
- the location of impervious structures (e.g. parking lots, roofs, etc.);
- the locations of all surface water bodies, including dry water courses, located in or next to the facility; and
- the locations of all potential pollutant sources identified under Part B.4.b.

4. **Stormwater Management Controls**

Each mining site certified under by this permit shall develop a description of stormwater quality controls appropriate for that site, and implement such controls. The appropriateness and priorities of controls in the plan shall reflect identified potential sources of pollutants at the mining site. The description of stormwater quality controls shall address the following minimum components, including a schedule for implementing such controls. For newly-certified facilities, if existing controls are inadequate to achieve the general objective of controlling pollutants in stormwater discharges associated with industrial activity, any schedule to implement additional controls to meet this objective shall not exceed 60 days from when the facility begins operations, or from when the general permit certification is issued, whichever is later, unless permission for a later deadline is obtained from the Division. New controls that will replace or modify existing controls that are already adequately addressing a pollutant source are not required to meet this schedule (e.g., replacing a control with a less resource-intensive practice).

- a. **SWMP Administrator** - The SWMP shall identify a specific individual or individuals within the mining organization who is responsible for developing the SWMP and assisting the mine operator in its implementation, maintenance, and revision. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP.
- b. **Identification of Potential Pollutant Sources and Best Management Practices** - The SWMP shall identify potential sources of pollutants at the site, and assess the potential of these sources to contribute pollutants to stormwater discharges associated with mining activities. The SWMP must also describe appropriate Best Management Practices (BMPs) to reduce the potential of these sources to contribute pollutants to stormwater discharges. At a minimum, each of the following shall be evaluated for the reasonable potential for contributing pollutants to runoff (*some sources may not be applicable to inactive mines*):
 - loading and unloading operations;
 - outdoor storage of chemicals or equipment;
 - outdoor milling or processing activities;
 - crushing facilities or significant dust and particulate generating activities;
 - on-site waste disposal practices;
 - stockpiles of overburden, raw material, intermediate products, byproducts, finished products or waste products; and
 - disturbed areas.

Factors to consider include the toxicity of the material; quantity of chemicals used; amount of material processed; the likelihood of contact with stormwater; and history of significant drainage, leaks or spills of toxic or hazardous pollutants.

The description of the BMPs shall include (*some BMPS may not be applicable to inactive mines*):

- 1) **Stormwater diversion:** Describe how and where stormwater will be diverted away from material handling and storage areas to prevent stormwater contamination..
- 2) **Materials handling and spill prevention:** For materials that could impact stormwater runoff, all existing and planned BMPs that prevent the contamination of stormwater runoff at the site shall be included and described. (*This requirement may not be fully applicable for some inactive mines.*)

- 3) **Sediment and erosion prevention:** Describe practices that will be used to reduce erosion and prevent sediment delivery to State waters. These could include structural (such as silt fences, sediment ponds, drop structures, check dams) and non-structural (such as mulching and revegetation) methods.
- 4) **Other pollution prevention measures:** The plan shall identify any other structural and non-structural measures for stormwater quality control on-site.

In each case where stormwater pollution potential exists, appropriate preventive measures must be identified and implemented.

- c. **Preventive Maintenance** - A preventive maintenance program is required, and shall involve inspection and maintenance of stormwater management devices (maintenance of dikes separating mine drainage from stormwater, cleaning oil/water separators and catch basins, etc.) as well as inspecting and testing of equipment and systems to prevent conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters. These periodic inspections are different from the comprehensive site evaluation (see Part I.D.5 of the permit), although the former may be incorporated into the latter. Equipment, area, or other inspections are typically visual and are normally conducted on a regular basis (e.g., daily inspections of loading areas). *(This requirement may not be fully applicable for some inactive.)*
- d. **Good Housekeeping** - The SWMP shall identify good housekeeping procedures that will be followed by the mining operation. Good housekeeping requires the maintenance of a clean, orderly facility. This part of the SWMP shall address cleaning and maintenance schedules, trash collection and disposal practices, grounds maintenance, etc. *(This requirement may not be fully applicable for some inactive mines.)*
- e. **Spill Prevention and Response Procedures** - Areas where potential spills can occur, and their accompanying drainage points, shall be identified clearly in the SWMP. Where appropriate, specifying material handling procedures and storage requirements in the plan shall be considered. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel. The necessary equipment to implement a clean-up shall be available to personnel. *(This requirement may not be fully applicable for some inactive mines.)*
- f. **Employee Education** - The SWMP shall describe employee education programs to inform personnel at all levels of responsibility (who are involved in mining activities that may impact stormwater runoff) of the components and goals of the SWMP. Education shall address topics such as spill response, good housekeeping and material management practices. The SWMP shall identify periodic dates for such instruction. Contractor or temporary personnel shall be informed of mine operations and control features in order to prevent stormwater pollution from occurring. *(This requirement may not be fully applicable for some inactive mines.)*
- g. **Identification of Discharges other than Stormwater** - The stormwater conveyance system on the site shall be evaluated for the presence of discharges other than stormwater. The SWMP shall include a description of the results of any evaluation for the presence of discharges other than stormwater, the method used, the date of any evaluations and the on-site drainage points that were directly observed during the evaluation. *(This requirement may not be fully applicable for some inactive mines.)*

A number of discharges other than stormwater may not require a CDPS Wastewater Discharge permit and are considered Allowable Non-stormwater Discharges. These are listed at Part I.D.3 of the permit. Any of these discharges that exist at the site must be identified in the SWMP.

5. **Additional SWMP Items for Sites Seeking Mine Remediation/Permit Termination**

Additional requirements apply in the event that the permittee wishes to remediate the inactive mine site and terminate permit coverage. If the site is already covered by this permit, the permittee shall notify the Division as to the change in status. Notification shall be prior to the implementation of the remediation work, if possible. The SWMP must be amended to include the following items, prior to implementation of the remediation work, if possible:

- a. **Documentation of Permission:** The plan shall include documentation of permission from the land owner, if the remediation work is undertaken by someone other than the land owner.
 - b. **Photographs:** The plan shall include photographs documenting the condition of the inactive mine site before any remedial action has occurred. For recently active mines, photographs of the active mining phase may be substituted.
 - c. **Description of Remedial Action:** The plan shall describe the remedial action that will take place to minimize or eliminate the water quality impacts from the mine waste. The description shall include:
 - Remediation Goal Statement;
 - the characteristics of the mineralogical content of the mine waste, and estimated volume of the waste;
 - description of any materials that will be mixed into the mine waste on site; and
 - estimated surface area of the final site, and estimated angle of side slopes.
 - d. **Description of BMPs during Remediation Activities:** The plan shall describe the BMPs that will be implemented to reduce the potential of remediation activities to contribute pollutants to stormwater discharges. Activities that shall be addressed include, at a minimum, vehicle maintenance, earth moving, revegetation, material storage and spill prevention.
 - e. **Procedures for Disposal of Water Stored Within Mine Waste:** The permittee must describe how any water stored within the mine waste will be collected and/or routed to any storage or treatment facilities. No discharge of this water shall be made to waters of the state, unless separate CDPS permit coverage is obtained.
 - f. **Description of Permanent BMPs, Final Site Stabilization, and Ultimate Land Use:** The plan shall include a description of the specific permanent measures that will be installed or used at the mine waste site. The description shall include any of the following if appropriate: specifications for capping or isolation of the mine waste, method and type of revegetation, and other permanent BMPs. The plan shall also include a description of the ultimate land use after remediation is complete.
6. **Comprehensive Inspection**
The SWMP shall identify qualified personnel that shall inspect designated equipment and mine areas at appropriate intervals specified in the plan, at least twice a year (in the spring and fall). The operator shall keep a record of such inspections. This record shall be made available to the Division upon request and shall be summarized in the Annual Report (see Part I.E.1.a of the permit).
7. **Consistency with Other Plans**
SWMPs may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under section 311 of the CWA, or Best Management Practices (BMPs) Programs otherwise required by a CDPS permit, and may incorporate any part of such plans into the SWMP by reference. The SWMP may rely upon information developed for other similar pollution control programs, including the Mined Land Reclamation Plan. Appropriate portions of these other plans may be incorporated in the SWMP by reference, as long as a **complete** SWMP can be reproduced and submitted to the requesting agency within the time frame specified in the request. Those portions of the referenced documents must be included in the submittal. The SWMP must also be readily available to an on-site inspector.