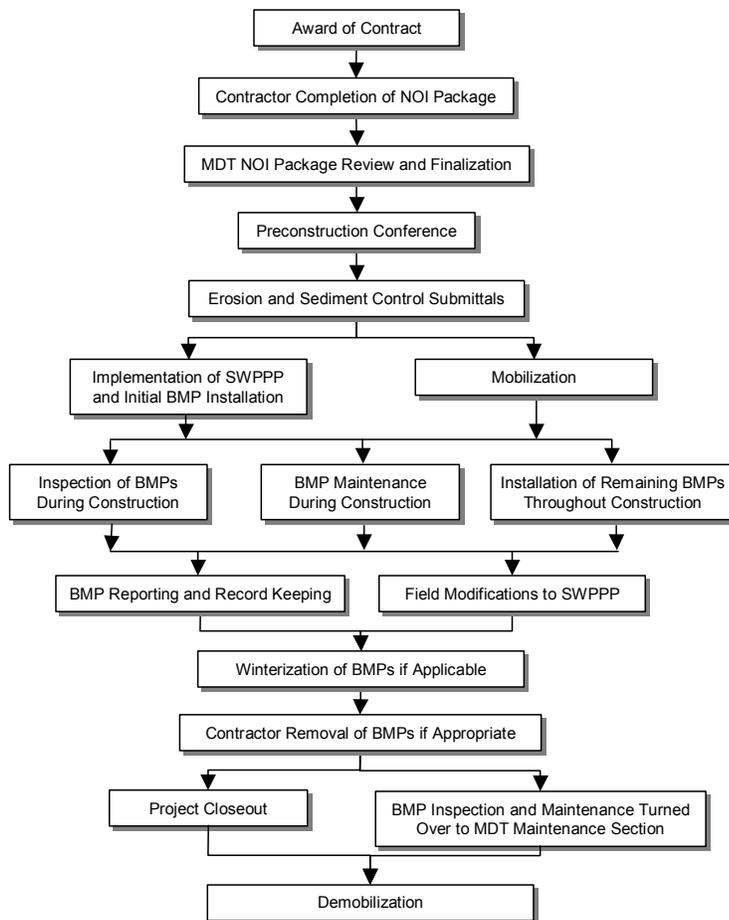


Section 3

Erosion and Sediment Control Construction Phase Process

Overview of Erosion and Sediment Control Construction

The goal of the erosion and sediment control plan sheets and the SWPPP is to protect Montana surfaces by incorporating erosion and sediment control devices into the construction stage of transportation projects in order to prevent excessive erosion and sedimentation. This section identifies the required activities and individual's responsibilities to ensure that the project has the necessary erosion and control measures in place during construction activities. Key MDT personnel, Contractors, and Regulatory Agencies are required in the construction stage of the project to properly integrate erosion and sediment control devices into the project. The three major areas of responsibility for construction of erosion and sediment control BMPs are the Engineer/Inspector, Contractor, and the Regulatory Agencies. The flow chart below summarizes the construction phase process.



Erosion and Sediment Control Post-Construction Process

MDT Responsibilities

MDT employees who oversee the construction phase of MDT projects hold the title of Engineer and/or Inspector. This manual will use “Engineer” for the project overseer. Under some circumstances the Engineer may be a contracted third party brought in to aid MDT in construction oversight. The third party is not allowed to have an affiliation with the Contractor in order to avoid conflicts of interest.

As a part of the general requirements listed above, the Engineer is responsible for ensuring that the Contractor constructs all erosion and sediment control BMPs as specified on the construction plans and in accordance with the SWPPP. In addition, the Engineer is responsible for monitoring the timeliness of the installation of each BMP following the construction timeline. BMPs shall be inspected at minimum once every fourteen calendar days (unless otherwise specified) and within 24 hours after any storm event of 0.5 inches or greater. The Engineer will notify the Contractor of any repairs, additions, or maintenance that are deemed necessary.

Contractor Responsibilities

The Contractor is the individual or legal entity contracted to perform the prescribed work. For purposes of consistency, the Contractor will encompass the prime contractor and any and/or all subcontractors used to complete the project.

As a part of the above tasks, the Contractor is responsible for installation and maintenance (and possibly the removal of) temporary BMPs on the construction site during the contract period. The Contractor shall work with the Engineer to ensure that all erosion and sediment control devices are working correctly. The Contractor shall inspect all BMPs at a minimum once every fourteen calendar days (unless otherwise specified) and within 24 hours after any storm event of 0.5 inches or greater. Upon routine maintenance, the Contractor shall adjust any BMPs that are not functioning correctly or install additional temporary BMPs as required to prevent erosion and contain sediment. Devices that are beyond adjustment shall be removed and replaced.

Regulatory Agencies Responsibilities

The primary regulatory agency that will be involved during the construction phase process is DEQ for non-Tribal lands and EPA for Tribal lands. DEQ/EPA is responsible for ensuring that all construction activities are in compliance with the General Permit. The following activities will be performed by DEQ/EPA:

- Check records that must be kept under the condition of the General Permit.
- Inspect any facilities, equipment, measures, or operations regulated or required under the General Permit.
- Sample or monitor any substances or parameters at any location within the construction activity area to assure permit compliance.

The operator shall allow DEQ/EPA to enter upon the construction site at reasonable times to perform the activities described above. Questions regarding DEQ's role during the construction phase process may be directed to:

Montana Department of Environmental Quality
Water Protection Bureau
Storm Water Program
1520 East Sixth Avenue
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

Questions regarding EPA's role and permitting obligations should be directed to:

EPA – Notice of Intent Processing Center
Storm Water Notice of Intent (4203M)
USEPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460
(866) 352-7755

BMP Monitoring/Maintenance Checklist

On-site monitoring is necessary to assure the proper functioning of soil erosion, sedimentation, and storm water control measures. To meet the General Permit requirements, all erosion and sediment control measures must be monitored at least once every fourteen calendar days and within 24 hours after any storm event of 13 mm (0.5 inches) or greater. MDT requires monitoring of BMPs once a week, prior to forecasted storm events, and after storm events. The Contractor and Engineer may want to use the following example inspection form to inspect the site.

BMP Monitoring / Maintenance Checklist

Yes No

- Are BMPs accessible for monitoring and maintenance activities?
- Is there evidence of excessive sediment loss or pollution from site?
- Are slope stabilization BMPs effective in preventing excess erosion?
- Are rills/gullies present on reclaimed slopes?
- Do slope stabilization BMPs require maintenance to remove sediment?
- Are additional or different BMPs required for slope stabilization?
- Are sediment control BMPs effective in preventing excessive soil loss from site?
- Is sediment laden water undercutting or bypassing BMPs?
- Do sediment control BMPs require maintenance to remove sediment?
- Are any off-site conditions or activities negatively affecting on-site BMPs?
- Is winterization of BMPs required?
- Are wind control BMPs effective in reducing off-site dust?
- Are there BMPs that can be removed?
- Do sediment traps and desilting basins require sediment removal?
- Have BMP monitoring report and maintenance forms been completed for each BMP?
- Have maintenance follow-up action items been recorded?

Winterization Checklist

BMP Winterization Checklist

Limit fall-time disturbance of surface area to only that which can be properly protected for snowmelt runoff?

Schedule temporary or erosion seeding prior to ground freezing?

Determine applicability of snow management BMPs and apply as appropriate?

Evaluate wintertime access to maintain BMPs?

Make sure all BMPs are in place and able to withstand spring thawing and snow melt conditions?

Project Close-out Checklist

Project close-out is the culmination of the construction activities. As construction ends, the Contractor and MDT work together to ensure that the project is constructed as designed. The activities listed below will assist the Contractor and the Engineer in assessing the completion of the project.

Are all temporary BMPs in place that are scheduled to remain after construction completion?

Are BMPs in proper working order and constructed in accordance to the plans, specifications, details?

Are BMPs free of sediment accumulation?

Have BMPs that are no longer necessary been removed?

Is proper access provided to all BMPs requiring post-construction maintenance?

Have all outstanding items from the last BMP monitoring been corrected?

Is a representative of the MDT Maintenance Division present for close-out inspection?