Erosion and Sediment Control Best Management Practices Research Project
2-year Project Review
2005

Meeting (4/8/05) Goal – Discuss project deliverable use, improvements, and additional needs

Comments (in italics) added to agenda and distributed – 8/11/05

Organizational Structure Survey

- MDT had highest miles of highway served per erosion and sediment control (E&SC) staff member of other States
- Recommended the creation of an E&SC Planning and Design Section
- Role is solely design of E&SC and follow-up of BMP successes and failures
- Recommended that an E&SC Committee be formed to help implement any organizational structure changes implemented by MDT
- Committee could track E&SC program progress, conduct research projects that track the effectiveness of BMPs, and/or provide additional technical support and direction to E&SC Planning and Design Section

MDT has followed up on the recommendations from the Organizational Structure Survey and has established an Erosion and Sediment Control BMP Rate Schedule Committee. This committee meets once a year. One E&SC professional position has been established and four additional District E&SC professional positions will be established.

The E&SC positions in each District should be involved in the design, construction, and maintenance for all E&SC measures taken on projects in their District, and should evaluate the performance of the E&SC measures used. Periodic meetings should be held with individuals involved in the design, construction, and maintenance of E&SC measures to for the purposes of coordination and improvement in operations.

The Environmental Services Section is also working on obtaining a CADD position. Alternatively, these duties could be incorporated into the field E&SC staff duties.

Reference Manual

BMP Fact Sheets

- Temporary Soil Stabilization
- Temporary Sediment Control
- Wind Erosion Control
- Snow Accumulation and Snow Melt
- Tracking Control
- Non-Storm Water Management
- Waste Management and Materials Pollution Control

The fact sheets have been very useful and are still up-to-date. The most used BMPs are the Soil Stabilization BMPs, Buffer Zones, and Preservation of Existing Vegetation.

BMP Detail Drawings

- Detailed drawings created or modified

Erosion and Sediment Control Design/Construction Process

- Describes design activities associated with erosion and sediment control.
- Notice of Intent (NOI) form and Storm Water Pollution and Prevention Plan (SWPPP)
- Emphasized soil stabilization as first step
- Incorporate E&SC design into alignment and grade and plan-in-hand reviews
- E&SC CADD Standards (Section 4.3.8) need to be incorporated into Reference Manual
- Construction site BMP monitoring
- BMP maintenance during construction
- Non-Compliance Mitigation (Section 5.2.11) reserved
- Winterization
- Notice of Termination (NOT) form submitted to regulatory agency at the completion of construction activities

Construction manual is currently being updated. BMPs are being implemented.

BMP Unit Cost Rate Schedule

- E&SC BMP cost rate schedule created
- Schedule to be updated periodically

Original cost rate schedule in manual was found to be accurate and has been updated most recently in April of 2004 and January of 2005.

Erosion and Sediment Control BMP Training Program

- Training manual and PowerPoint training program created for E&SC training

E&SC training is currently being conducted during the Annual Construction Academy and the Annual Maintenance Academy. E&SC training needs to be directed to preconstruction staff as well. The annual preconstruction and construction conferences are going to be combined into one conference. Training will be offered at this conference.

Future Considerations

- BMP monitoring for effectiveness

- Treatment BMPs
  Infiltration
  Infiltration Trench

Infiltration Basin
Retention/Irrigation

Detention and Settling

Wet Pond
Constructed Wetland
Extended Detention Basin

Biofiltration

Vegetated Swale
Vegetated Buffer Strip
Bioretention

Filtration

Media Filter

Flow Through Separation

Water Quality Inlet
Vortex Separator
Drain Inserts

Other

Multiple Systems

CDM provided some examples of Treatment BMPs that can be implemented by MDT.

- TMDL considerations

In summary, the recommendations and products delivered in the E&SC Organizational Structure Survey, the BMP Reference and Field Manuals, Training Program, Detail Drawings, and Unit Cost Rate Schedule have been implemented and continue to be used and updated.