

Evaluation of Effectiveness and Cost-benefits of Woolen Roadside Reclamation Products

Meeting Minutes

March 18, 2014 at 9:30 – 11:30 am

Montana Department of Transportation headquarters in Helena, MT

Type of Meeting:

Kick-off meeting for research project

Attendees:

- Alan Woodmansey (FHWA) and Dimas P. (FHWA)
- Jennifer Davis (MDT Hydraulics Section)
- Scott Helm (MDT Geotech Section)
- Phil Johnson (MDT Environmental Services)
- Kris Christensen (MDT Research Programs)
- Rob Ament (WTI Road Ecology Program)
- Stuart Jennings (KC Harvey Environmental, LLC)
- Monica Pokorny (KC Harvey Environmental, LLC)

Agenda Topics:

Kris Christensen reviewed the terms of the contract and Technical Panel responsibilities.

- The Technical Panel will serve as the expert for MDT and review project deliverables.
- Phil Johnson will chair the project.
- Ongoing communication is important. Keep Kris informed of progress and happenings.
- Kris will serve as the liaison between the Technical Panel and WTI-KCH Research Team (contractor). Kris will distribute information to the panel.
- Any amendments go through Kris.
- Timely deliverables are required.
- Use the MDT FTP or WTI FTP sites for big files (> 10MB).
- MDT requires permission to publish or present at a conference, give at least two weeks for review.
- Follow the MDT report guidelines and templates for the quarterly progress, tasks, and final reports. No annual reports will be needed.
- All project materials are publicly available and will be posted on the project website.
- All reports will be considered drafts until the Technical Panel has approved the documents.

Rob Ament gave an overview of the project tasks.

- It was agreed that this project will perform research on small scale to demonstrate proof of concept that woolen erosion control products are similar or superior to conventional products made with non-degradable materials.
- We reviewed MDT annual needs for erosion control geotextiles for riparian rip rap situations, erosion control blankets (ECBs) for steep cut slopes (estimated 8-10 acres/year), hydro mulch

(estimated 250-350 acres/year). Also the possibility of woolen components in compost for blower truck applications underneath ECBs.

- We reviewed the three wool processing methods that create potential wool products for roadside applications (carding(wool batts), felting - wet and dry, woven)
- We reviewed the wool products gathered by MDT, WTI, and KCH, to date, and discussed their uses for roadside applications. These products included: wool batting, wool felt (needle punched and wet felted), wool twine, wool mulch, as well as conventional erosion control products. We were able to obtain and review commercially available wool ECB produced and used in New Zealand.
- We reviewed wool materials and their potential uses as silt fences.
- We reviewed wool materials as potential replacements for straw wattles.
- We discussed wool nails and their potential use in compost for blower truck applications and hydro mulch applications
- Deep Creek will be a site for spring installations including: wool wattles (50 ft.), wet felted “silt fence” (~100 feet), batting ECB.
- Additional experimental sites will be developed once material availability and physical property testing is completed.

The Technical Panel and WTI-KCH Research Team will meet again in approximately 1 month to discuss the wool materials and their experimental use, and the product tests to conduct on each product (Tasks 2 and 3).

The WTI-KCH Research Team will continue to gather products and work with woolen mills/erosion control product producers to develop wool-based material we would like to test. Discussion occurred about the potential to do some bench top/greenhouse testing to use as a preliminary screening technique (e.g. the ability of plants to penetrate through fabric seeded in greenhouse trays). The Technical Panel and WTI-KCH Research Team also agreed the time to conduct field tests of materials for revegetation will most likely occur in Fall 2014. This opens an opportunity for some preliminary material testing on a small scale prior to design and implementation of the field tests.

Overall Project Scope: Unchanged, refinement occurring

Overall Project Schedule: It is likely the primary experimental plots will be installed Fall 2014 rather than Spring 2014 as originally anticipated. Some Spring 2014 demonstration is anticipated (Deep Creek).

Overall Project Budget: Unchanged