

Peer Exchange Day 1 Chat Transcripts

[2:07 PM] Burkwald, Kimberly (Guest)

Idaho Do you have specific projects you are asking designers to use these products on? Are you using them as experimental features in these cases? Possibly where requested by resource agencies for TE snake species which occur in the area? Are you running into any instances where the product has failed to meet performance standards when it's been implemented on a specific project causing permit violations? Thanks from Illinois DOT!

[2:18 PM] Marc S. Theisen (Guest)

the silt fence is "failing", actually not because it is receiving way more flow. Frankly the amount of sediment captured is impressive. It does need to be maintained.

[2:39 PM] Tracey Janus (Guest)

what kind of internal training do your engineers get to understand how to select and use these products?

[3:01 PM] Burkwald, Kimberly (Guest)

For WSDOT : Who drove the research on product performance with regard to meeting permit requirements, cost analysis, implementation, spec updates etc.? You mentioned that you worked together with Washington State EPA and the WSDOT. Are these Washington EPA Spec in relation to these permit requirements, for use on all construction projects statewide, not necessarily solely DOT, or are these DOT Specs in response to WSEPA Specs? More below:

We are running into much the same challenges at IL DOT that you described. We need to test product performance before using them on products and changing our Specs, but we realize that DOT Construction projects are the largest driver of availability, cost and improving product performance. Do you have a start/idea on how to streamline requirements for testing materials? Do you have research you can share on cost maintenance e? We currently have a University of Illinois Research proposal to look into these things so that we can also update our DOT Specs

*** Research on performance, cost, maintenance equipment damage savings, etc.*

[3:06 PM] Dunleavy, Peter (DOT) (Guest)

Do we ever need silt fence anymore, with logs?

[3:07 PM] Gungor, Kerem (Guest)

In Maine, erosion control mix berms are used in many projects and they are very effective silt fence substitutes.

[3:08 PM] Serio, Melissa (Guest)

Sorry if this was covered, but do snakes also get caught in natural netting blankets?

[3:23 PM] Slesar, Chris

Melissa Serio - re snakes and natural fiber matting. Anecdotally we have not seen it and have not received reports from our Construction Env. ENGINEERS or VDF&W. I have actually seen spotted salamanders moving through the natural fiber netting with ease as the grid is able to expand with very little pressure.

[3:23 PM] Smith, Christopher E (DOT) (Guest)

I am not aware of snakes being entangled in natural net. It's more flexible and allows snakes to pass through the netting. I will be back on the call soon.

[3:32 PM] Lisa Simms, PE, CPESC (Guest)

to melissa RE snakes getting caught in natural netting: Most of the natural netting is a leno weave meaning the intersections are not fixed and can move around making it more likely that a snake can work its way out

[3:09 PM] MARSHALL Robert R (Guest)

RoLanka has some coir products that filter sediment.

[3:10 PM] Alissa Salmore (Guest)

I saw an example of a stacked log 'wedge' for some function like a silt fence. not sure if that would meet spec.

[3:10 PM] Grider, Nathan (Guest)

Regarding plastic silt fence, it is often used as a wildlife exclusionary barrier for projects near sensitive wildlife areas as well. However, I agree that it is often over used on many projects. We will still need to think about this other purpose of silt fence when considering alternatives. Nathan - IL DNR

[3:11 PM] MARSHALL Robert R (Guest)

Does anyone know what PAM becomes in the landscape? (polyacramides)

[3:12 PM] Alissa Salmore (Guest)

For Kimberly's earlier q about T&E projects: , ITD District 4 requires non plastic BMP items where we have listed threatened and endangered salmonid species which was at the request of both USFWS and NOAA/NMFS. The natural BMPs were not experimental. The BMPs are existing mass-produced products. The products have successfully met performance standards in our applications. There have been no permit violations.

[3:13 PM] Wolfanger, Cassandra

CA and OR -- Is there a concern about nutrient-rich leachate coming from compost berms/blankets/socks after they become saturated? Thinking from a nutrient pollution standpoint, could it become unintended liquid fertilizer to already eutrophic downstream systems? Or would it just seep into the soil below? (Asking as someone inexperienced in transportation projects, so forgive me if that doesn't make sense). Thanks!

[3:27 PM] Gungor, Kerem (Guest)

FYI: MaineDOT erosion control mix specifications are available from

<https://www.maine.gov/mdot/contractors/publications/standardspec/docs/2020/Division%20700%20-%20Materials.pdf>

[3:30 PM] Lyon, Casey (Guest)

USFWS and Florida Fish and Wildlife Conservation Commission does not allow FDOT to use any netting (including natural/all plant material) on the beaches to avoid entangling hatchling sea turtles.

[3:44 PM] Marc S. Theisen (Guest)

don't we think the majority of microplastics are coming from wastewater when synthetic fabrics are washed?

[3:48 PM] Smith, Christopher E (DOT) (Guest)

I think so Marc. Still a lot to learn though.

[4:10 PM] Russell, Jeannine

Marc - one of the studies that Rozalia has done in on what happens to synthetics when they are washed. There are a lot of microplastics that end up in the water from synthetic fabrics. The founder of the Rozalia Project is also the founder/CEO of what's called the Coraball <https://coraball.com/> which you throw in your laundry and it catches those particles and prevents them from entering the wastewater. I've put a link in this message so folks can see what it does. Cora Ball - The World's First Microfiber Catching Laundry Ball Protect the ocean environment with this easy-to-use laundry ball that catches microfibers shedding off our clothes into the public waterways.coraball.com

[4:10 PM] McCully, Jeannie (Guest)

Also have you considered dye-free? From what I understand past mulches were dye free

[4:19 PM] Alissa Salmore (Guest)

The dye issue begs the question, of is there a better way to track application? I wonder if application rate check points + GPS area tracking would move the needle on reducing need for dye?

[4:23 PM] Marc S. Theisen (Guest)

It is in no way "convenient" to run the MnDOT product. The units have to be cleaned out from green dye to no dye and then add the blue dye and then clean out again back to no dye and then back to green dye. There is a lot of wasted material between the switch outs. It would be easier to run no dye all the time, but that is not what the industry have been asking for the past 50 years per the comments regarding the call for coloration in existing specifications.

[4:24 PM] Goodson, Darcy (Guest)

Based on current information, does "non-toxic" language in a specification automatically prohibit malachite green?

[4:24 PM] McCully, Jeannie (Guest)

Industry tends to want to know what "non toxic" means.

[4:24 PM] McCully, Jeannie (Guest)

And it can go down a rabbit hole

[4:25 PM] Dunleavy, Peter (DOT) (Guest)

NYSDOT specs just say "non-toxic dye"

[4:26 PM] Serio, Melissa (Guest)

Iowa DOT spec refers to "nontoxic to plants, fish, and other wildlife when properly applied according to EPA and other regulatory agencies"

[4:27 PM] McCully, Jeannie (Guest)

WSDOT has "All HECPs shall be made of natural plant fibers unaltered by synthetic materials, and in a dry condition, free of noxious weeds, seeds, chemical printing ink, germination inhibitors, herbicide residue, chlorine bleach, rock, metal, plastic, and other materials detrimental to plant life."

[4:27 PM] McCully, Jeannie (Guest)

Thanks for sharing the info about the laundry balls! Will definitely look into this for personal use

[4:28 PM] LIVENGOOD Celine (Guest)

theres another laundry product I've been using called Guppyfriend. It's a laundry bag that catches microplastics while washing. I love this thing so much I've given them as gifts.

[4:28 PM] McCully, Jeannie (Guest)

This is great - Thanks for sharing Celine

[4:32 PM] Matt Welch (Guest)

Would tire wear be a separate DOT forum? I believe some tires wear faster than others and could set a minimum standard?

[4:34 PM] McCully, Jeannie (Guest)

Yes

[4:36 PM] Craig Shultz (Guest)

D6460 and D6459 are standardized large-scale tests that are often required

[4:38 PM] McCully, Jeannie (Guest)

<https://www.wsdot.wa.gov/publications/manuals/fulltext/M41-10/SS.pdf>

9-14.6(2) Biodegradable Erosion Control Blanket

9-14.6(2) Biodegradable Erosion Control Blanket

9-14.6(2)A Biodegradable Erosion Control Blanket for Slopes Steeper than 3:1 (H:V)

9-14.6(2)B Biodegradable Erosion Control Blanket for Slopes Flatter than 3:1 (H:V)

9-14.6(2)C Biodegradable Erosion Control Blanket for Ditches

[4:45 PM] McCully, Jeannie (Guest)

This an interesting info sheet from CA https://www.coastal.ca.gov/nps/Wildlife-Friendly_Products.pdf

[4:45 PM] Smith, Christopher E (DOT) (Guest)

Explains a lot Peter...

[4:46 PM] Burkwald, Kimberly (Guest)

We used this sheet as a reference in our Research proposal at IL DOT

[4:46 PM] Jay Sprague - TRI Environmental (Guest)

PAM Degradation article from the Journal "Nature" <https://www.nature.com/articles/s41545-018-0016-8>

Polyacrylamide degradation and its implications in environmental systems High molecular weight (106–3 × 107 Da) polyacrylamide (PAM) is commonly used as a flocculant in water and wastewater treatment, as a soil conditioner, and as a viscosity modifier and friction reduc...www.nature.com

[4:47 PM] Burkwald, Kimberly (Guest)

Thank you Jeannie!

[4:47 PM] Smith, Christopher E (DOT) (Guest)

Here is another sheet from MNDNR: <https://files.dnr.state.mn.us/eco/nongame/wildlife-friendly-erosion-control.pdf>

[4:47 PM] Jay Sprague - TRI Environmental (Guest)

no. just found it by typing "PAM degradable" in the search bar

[4:48 PM] Kubek, Ellen T (DOT) (Guest)

Will the chat comments be saved for participants? I'm having trouble trying to copy and save them all and there's a lot of great information being exchanged.

[4:48 PM] McCully, Jeannie (Guest)

Our specs on PAM: 8-01.3(2)E Tackifiers, 9-14.6(1) Polyacrylamide (PAM)

[4:48 PM] Burgos, Natalie (Guest)

And recordings?

[4:48 PM] Williams, Sara

I believe the chat is saved automatically in TEAMS

[4:50 PM] Dunleavy, Peter (DOT) (Guest)

GREAT day - VERY illuminating - thanks for doing this and for all the prep, great speakers and good facilitation.

[4:50 PM] Lois Johann (Guest)

Thank you so much this has been very informative and we have a lot to think about in NJ!

[4:50 PM] McCully, Jeannie (Guest)

Most definitely - thank you for pulling this together. Very exciting possibilities (smile)

[4:50 PM] Burkwald, Kimberly (Guest)

I learned a lot today! Thank you presenters and participants!

[4:51 PM] Kraska, Johnathon L (Guest)

Very informative, thank you everyone!