To: SEEDS Joshua [SEEDS.Joshua@deq.state.or.us]; avid Powers/R10/USEPA/US@EPA[]
Cc: Jennifer Wu/R10/USEPA/US@EPA;Jayne Carlin/R10/USEPA/US@EPA;Alan Henning/R10/USEPA/US@EPA;"FOSTER Eugene P" [FOSTER.Eugene@deq.state.or.us]; ayne Carlin/R10/USEPA/US@EPA;Alan Henning/R10/USEPA/US@EPA;"FOSTER Eugene P" [FOSTER.Eugene@deq.state.or.us]; lan Henning/R10/USEPA/US@EPA;"FOSTER Eugene P" [FOSTER.Eugene@deq.state.or.us]; FOSTER Eugene P" [FOSTER.Eugene@deq.state.or.us]
From: MICHIE Ryan <Michie.Ryan@deq.state.or.us
Sent: Thur 2/7/2013 10:01:09 PM
Subject: RE: GRAIP-Lite update
image001.gif
Powers.David@epamail.epa.gov
mailto:Powers.David@epamail.epa.gov
Wu.Jennifer@epamail.epa.gov
Carlin.Jayne@epamail.epa.gov
Henning.Alan@epamail.epa.gov
powers.david@epa.gov
woodruff.leigh@epa.gov

Also related….

The full GRAIP road inventory and model runs are complete in the North Fork Siuslaw watershed. I've seen a draft version of the report (sorry can't forward it to you yet, but I believe the USFS should be finalizing it soon). I think this information will drastically improve the sediment TMDL and contribute greatly to the roads discussion.

From: SEEDS Joshua
Sent: Thursday, February 07, 2013 1:54 PM
To: 'Powers.David@epamail.epa.gov'; MICHIE Ryan
Cc: Wu.Jennifer@epamail.epa.gov; Carlin.Jayne@epamail.epa.gov; Henning.Alan@epamail.epa.gov; FOSTER Eugene P
Subject: RE: GRAIP-Lite update

Thank you, Dave. I spoke with Charlie Luce at the Sediment Symposium in January. He thought GRAIP-Lite could be a good tool for the MidCoast, and he was willing to talk about it more. After the Technical Report comes out, we can get on the phone with Charlie and figure out how best to use it in the MidCoast, maybe even conduct a calibration pilot.

Josh

From: Powers.David@epamail.epa.gov [mailto:Powers.David@epamail.epa.gov]
Sent: Thursday, February 07, 2013 12:49 PM
To: SEEDS Joshua; MICHIE Ryan
Cc: Wu.Jennifer@epamail.epa.gov; Carlin.Jayne@epamail.epa.gov; Henning.Alan@epamail.epa.gov
Subject: Fw: GRAIP-Lite update

Please do not distribute abstract below... but heads up on potential tool for mid-coast TMDL roads effort

David Powers
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-----Forwarded by David Powers/R10/USEPA/US on 02/07/2013 12:45PM -----

To: Eric Monschein/DC/USEPA/US@EPA, David Powers/R10/USEPA/US@EPA, Peter Leinenbach/R10/USEPA/US@EPA, Teresa Kubo/R10/USEPA/US@EPA, Alan Henning/R10/USEPA/US@EPA, Erik Peterson/R10/USEPA/US@EPA, Lynne McWhorter/R10/USEPA/US@EPA, David Croxton/R10/USEPA/US@EPA, Jennifer Wu/R10/USEPA/US@EPA
From: Leigh Woodruff/R10/USEPA/US
Date: 02/07/2013 12:39PM
Subject: GRAIP-Lite update

Hi folks -

I met with USFS folks this morning who have been working under an IAG with EPA to develop a "GRAIP-Lite" road sediment evaluation tool. You recall that GRAIP is the sediment analysis tool which the Rocky Mtn Research Station developed, which does a great job at inventorying and prioritizing road related sediment problems, identifies landslide risks, and produces a road sediment budget. Its incredibly valuable, but requires quite a bit of field data collection, hence is expensive.

The idea behind GRAIP-Lite was to see if a less costly and data intensive tool could be developed to screen watersheds to determine if problems were significant enough to warrant full-scale GRAIP analysis. GRAIP-Lite is now largely complete, and will be published as a Technical Report this spring. Essentially it uses existing GIS roads layers, digital elevation models, and stream network to estimate sediment production and delivery. It can be run without any field data collection, but to be of any real value, a small "calibration" data set should be collected in a similar landscape setting (soil, geology, slope), using a limited set of parameters. When a limited field calibration is used, currently the model produces results within about 25% of full GRAIP analysis based on validation comparisons to date. At present it appears to have a negative bias (ie. underestimates GRAIP), but still, these results are very good. Additional error analysis is underway to tease out where bias is occurring, and correct if possible.

This is very good news, and already Forests are wanting to use the new tool to track trends in their Watershed Condition Classifications. Charlie Luce mentioned this last point with both excitement and fear in his eyes. The tool is only as good as the data you put in it (no surprise), and if you have a poor roads layer, or if you dont get calibration data for the landscape setting where your watershed is located - you cant expect good results. That said, these guys think it is by far the best tool out there now for evaluating roads, short of GRAIP. Currently it is being used within NETMAP, and is reportedly far superior to the WEPP based road sediment tool also located within NETMAP.

Here is an abstract of a presentation to be given on GRAIP-Lite next week at the Idaho Water Quality conference. As more concrete information and the Technical Report become available, I will circulate.

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