

## Q&A Report: LAOWG - Drift Removal and Scour Countermeasure Maintenance

Question Asked	Answer Given
What about low slope culvert with a weir where siltation is building up behind it	It might be worth chatting with a hydraulic engineer to discuss how the siltation is impacting the function of the culvert.
Please send info to ababatola@valleywater.org, thank you	
cblum@sehinc.com for future mailings	
dustin.breithaupt@sdcounty.ca.gov	
Thank You. I look forward to the next training/webinar.	
Have a great rest of the day!	
Can you expand on your experience using concrete cloth for slope protection? What kind of maintenance does it require once installed?	I had called it Milliken, but they were sold off to <a href="http://www.concretcanvas.com/us/">www.concretcanvas.com/us/</a> First, I would consider Concrete Cloth a short term fix 5 years max, but an effective tool to have in your toolbox depending on budget and timing. Make sure you focus on the perimeter to make sure it is not getting undermined, and the turf adjacent is getting established.
Thank you, very helpful.	
Do the JET drains requently get clogged to the point they dont work if not routinely maintained? Curious on your experience with them	Generally they performe well. they do require routine cleaning and frequency will be dependent on material size and volume.
For the WBPP Denver CO conference (March 10-12), is there a PDF with a list of technical sessions which will be covered at the conference? I see the general agenda but not specific topics. Thanks!	The agenda is being finalized and should be on the website in the next few weeks.
Will the slides/presentation be available after the training other than in video form?	Yes. It usually takes us about a week to get it posted. You can find this training and previous trainings at this link: <a href="https://www.pavementpreservation.org/video_library/bridge/Local_Agencies_(Sorted).html">https://www.pavementpreservation.org/video_library/bridge/Local_Agencies_(Sorted).html</a>

Any recommendations to retro fit open pile piers to reduce the opportunity to catch drift?	Installing fender boards between the piles can help, but it also restricts inspection access. So I don't know it is a recommendation, but something that could be tried in some locations.
Please send me a link of future videos and ideas of how to maintain and prevent scouring, and when to and what size rip rap should be used . My info is jose.gutierrez@maderacounty.com	
Great information	
Can concrete cloth be stronger than concrete invert paving? We've done 3-inch concrete bottoms in our CMPs but they get blown out by rocky sediment.	No - Reinforced Concrete invert paving would be the best option. Concrete cloth is faster and cheaper for a maintenance crew to install, not better.
Thank you.	
Thank you for the presentation! Very informative.	
Debris Control Structures Evaluations & Countermeasures - FHWA-IF-04-016 (Hydraulic Engineering Circular No 9)	Thanks for sharing this useful reference.
I had trouble logging in to the platform. I logged in at 12:11 EST.	Are you currently having any issues?, Thanks for the heads up. We're often reevaluating this platform and the pros/cons of using it.
Everyone else muted too?	Yes everyone is
The "Debris-Free" is what we used here in Wisconsin... Wasn't too impressed with them.	
How many ppl are on this webinar?	We're at 560 right now., there are 850 registered at this time there are 551 in attendance at this time
Nice. Adding my contact info for future invites etc. kelly.kauk@snoco.org	
Timber element preservation/retrofit techniques or similar would be helpful as a topic.	We'll add it to the list. I would mention that we gave one timber presentation back in July. Here is a link to that training. Let us know if there are specific timber members you'd be interested in seeing more about. <a href="https://youtu.be/M6OWcNsx4GY">https://youtu.be/M6OWcNsx4GY</a>
Please add to email contact list here.?	Barrie please enter your email address here or email me at <a href="mailto:linzchar@msu.edu">linzchar@msu.edu</a>

sin boldly and ask for forgiveness later	
Thank you	
What kind of rehab can be done to the bottom of the corroded ribbed steel culvert?	Invert paving is something I've seen done for structural repairs. Shear studs are attached above the rusted invert, reinforcement added and concrete placed along the invert to reinforce the damaged section. However, I'll mention that in Oregon at least, environmental permitings has been difficult to secure for this kind of repair.
How do you address beaver dams that are blocking the waterways?	Beaver dam removal will be similar to drift, but maybe you don't need such large equipment. Small hooks and start picking at it.
Thanks Jason and Travis! Great topic and presentation.	
Nice presentation today.	
I am not seeing your slides.	Maybe sign out and back in. I'm seeing them.
Thanks, that worked.	Awesome. Thanks for confirming.
I have see bollard in the water to divert drift	
What kind of preventative maintenance or initial design decisions can be made to alleviate drift issues?	Avoid placing piers in the stream is your best bet to avoid drift issues. The next step is to minimize the number of piers and the columns to reduce drift. I've also seen some "Drift Preventor" devices sold to try and divert logs from hanging up (usually a wedge placed in from of the upstream column), but haven't heard much about how effect they are.
Bridges' Chloride Remediation could be a possible future topic	
If you could add me to the training invite lists please:	
Mary Rothrock - mary.rothrock@lanecountyor.gov	
Do you have a preference for a bottomless arch so the the culvert is not structural dependent on a bottom?	We use Contech/Conspan precast arch culverts in Michigan.
Have you considered bankful width (dynamic equilibrium / fluvial geomorphology) for where it is best to remove drift at a bridge?	I have not, usually we focus on getting any of the larger drift pulled.
Good morning, everyone	

Upstream install a Grizzley	
Do we know what the laws are in California ?	We do not. The intent of this training is to give a heads up on common best practices and make folks aware of potential permitting requirements. I'd suggest reaching out to CalTrans to see what permits and best practices they utilize for drift removal and align local work with those requirements.
thank you	
At what point would it be good to recommend debris/silt removal. Is there a measurable point that can be used/referenced?	It depends largely on what is the hydraulic opening and whether or not the debris is hindering inspection. Generally we want to clean them out once we believe the opening has closed enough to impact the performance under heavy rain events.
The beach sand removal example, was there an attempt to coordinate the material disposal at a beach nourishment project?	No there was not. Sand was hauled away.
yes please make a list for those	
In CA, Any mitigation to a Scour Critical Bridges (SCB), PLEASE, PLEASE work with Caltrans. They have engineers that can make sure you are getting the best benefit for your effort and money spent to mitigate the risks to SCB.	Agreed! Good advice Chris.
How long (years) does the crack injection repair last? Is the crack an indication of a greater structural issue?	Haven't experienced failures with this type of repairs, so difficult to say. Suggest frequent inspections.
sorry, i have to drop off for another meeting, great training.	
Thank you	