

To: West Multnomah Soil and Conservation District Board of Directors

From: Alexandra P. Clarke, MAFM

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Subject: Soils of the Tualatin Ridge

The health of fish in our rivers and streams is indicative of our overall health.

And, *“The health of our rivers and streams”* is closely linked to *their* surrounding watersheds. (Trout Unlimited)...

Last week I had a conversation with **Dr. Scott Burns, Geology Emeritus faculty, Portland State University.** **Dr. Burns explained that the soil type that stretches all along the Tualatin Ridge, and includes the North Tualatin Mountain properties owned by Metro, Forest Park and the River View Natural Area are categorized as Cascade Silt Loam, which is highly erodible.** Tualatin Ridge Cascade Silt Loam soil of up to 150 ft. thick is made up of wind-blown silt that came off of the Columbia River flood plains for the last 2.6 million years. **Dr. Burns stressed that Cascade Silt Loam is easily mobile.** Each time it rains the soil erodes, gets muddy, then it dries out and blows off. **The effect of mountain bike breaking and acceleration and lubricants depositing on this type of soil causes the soil to be dug up.** As such, the ruts and shreds created become polluted; silt filled puddles and streams that go downhill filling the larger streams feeding into the Willamette River with sediment and pollutants. **This type of erosion is not good for a storm watershed’s water quality, humans, wildlife and fish. Hiking and walking, on the other hand, compact this type of soil with very little to no erosion or pollution.**