



SPOKANE
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9/8/2022

Hangman (Latah) Creek FC, Temperature, and Turbidity TMDL:
WQ Improvement Report Water Quality Project Manager
Washington State Department of Ecology
300 Desmond Dr SE
Lacey, WA 98503

Jeremy,

This letter, along with the attached QAPP and 2020 and 2021 Sediment Study reports, shows the connection between anthropogenic derived turbidity in the Hangman Creek basin, and the turbidity levels seen in this study in the Spokane River.

Hangman Creek flows through the highly erodible Palouse, an agricultural area consisting of fine Loess soil. It once contained abundant stocks of salmon and trout, but has since been degraded to the become listed as impaired for fecal coliform bacteria, turbidity, elevated water temperatures, dissolved oxygen (DO), and pH. The origin of this pollution, while complex, has a strong anthropogenic source. The Hangman (Latah) Creek FC, Temperature, and Turbidity TMDL: WQ Improvement Report (2009, pg 141) states that current agriculture practices and lack of riparian buffer cause the majority of sediment erosion, the cause of high turbidity levels.

“The WARMF model results suggested major sediment erosion was generated from the same sources that have been discussed in previous reports for the watershed (SCCD, 1999; 2002; 2005a; 2005b; Peters, Kinkead, and Stanger, 2003). **Conventional agricultural practices and streambank erosion are the largest sediment sources in most areas of the watershed.**”

This is not a new phenomenon. We cite in our attached report a quote from the Spokane Conservation District from 1994.

“....it has been established that the effects of sediment pollution on the Spokane River are wide ranging and profound, in their 1994 study the Spokane Conservation District stated, “Hangman Creek is one of the largest contributors of bedload and suspended sediments into the Spokane River. Bedload and suspended sediments originating from Hangman Creek are transported to and deposited behind Nine Mile Dam and eventually settle out in Lake Spokane. Soletero et al. (1992) estimated Hangman Creek contributes 77 percent of the total annual sediment load to Lake Spokane. The annual suspended sediment load from Hangman Creek was estimated to be 52,000 tons in 1998 and

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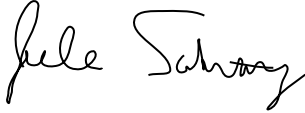
211,000 tons in 1999 (SCCD 2000). The increased sediment load has also more locally resulted in embedded substrate and unsuitable spawning habitat for salmonids. **The principal source of suspended solids comes from nonpoint sources (roads, annual cropland, eroding streambanks (SCCD 1994)).”**

The Spokane Conservation district, in their “Hangman Creek Sediment Discharge Report for Water Years 1998 and 1999”, document an incredible 211,000 tons of sediment flowing out of Hangman Creek. They state:

“The suspended sediment is derived from both bank and field erosion, but it is suspected to be primarily from agricultural field erosion.”

For further documentation of the source of turbidity in the watershed, please read our attached 2020 report (The Effect of Turbidity from Hangman Creek on the Spokane River) and our 2021 report (Hangman Creek – Spokane River Turbidity Study, Water Year 2021).

Sincerely

A handwritten signature in black ink that reads "Jule Schultz". The signature is written in a cursive style with a large initial "J" and "S".

9/22/2022

Jule Schultz
Spokane Riverkeeper