

## UNDERTAKING 32

*CanZinc will provide anticipated quantity and timing of sediment accumulation (signed by a qualified professional) related to the Sundog Creek realignment. Based on this information, CanZinc will provide the anticipated frequency, extent, and methods of dredging (and other maintenance activities, including disposal of dredged material), and estimates of impacts on fish, fish habitat, and other aquatic life due to these activities (annually and over life of the project).*

In our reply to Undertaking 26, it is stated that “the realigned channel is expected to be in balance with its hydrologic and sediment inputs, and to convey sediment through the reach in a sustained manner similar to the existing channel, without need for recurring dredging or other planned maintenance”. Therefore, sediment accumulation is not expected.

In our reply to Undertaking 28, it is stated that “in the unlikely event there is a localized sediment accumulation that could negatively affect the performance of the realignment, limited removal might be contemplated during a period of no flow. If this occurs, the above described hose-down and fines management can be implemented”. Note, should limited and localized sediment removal be required, which we do not expect, this would be achieved by excavation in dry conditions, not dredging. Impacts on fish, fish habitat, and other aquatic life would be minimal.

During the assessment of effects from channel realignment, one issue considered was the potential for exposing fine material during excavation of the new channel, and the risk of suspension of that fine material and TSS elevation during subsequent stream flows. Additional fieldwork conducted in July 2016 identified significant deposits of fine material exposed at surface in the channel to be reactivated, particularly near the inlet (see photo below). Bed material seems to consist of a bimodal distribution of fine material and gravel-cobble size material. Since fine material is already exposed in the channel to be activated, it is considered unlikely that the proposed excavation will expose significantly greater fine material deposits. Therefore, the risk of TSS elevation is considered to be lower than originally assumed. However, the proposed mitigation will still be implemented.

