

SITE NUMBER AND NAME: <b>S045-II Threepoint Creek</b>		HIGHWAY & KM: 549:02, 12.315	PREVIOUS INSPECTION DATE: July 5, 2021	INSPECTION DATE: <b>May 9, 2023</b>
LEGAL DESCRIPTION: 02-08-021-03 W5M	NAD 83 COORDINATES: UTM    Northing    Easting 11       5626611    684647		RISK ASSESMENT: PF: 7    CF: 8    TOTAL: 56	
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 800 (east), (Ref. No. 65170)			CONTRACTOR MAINTENANCE AREA (CMA): 27	

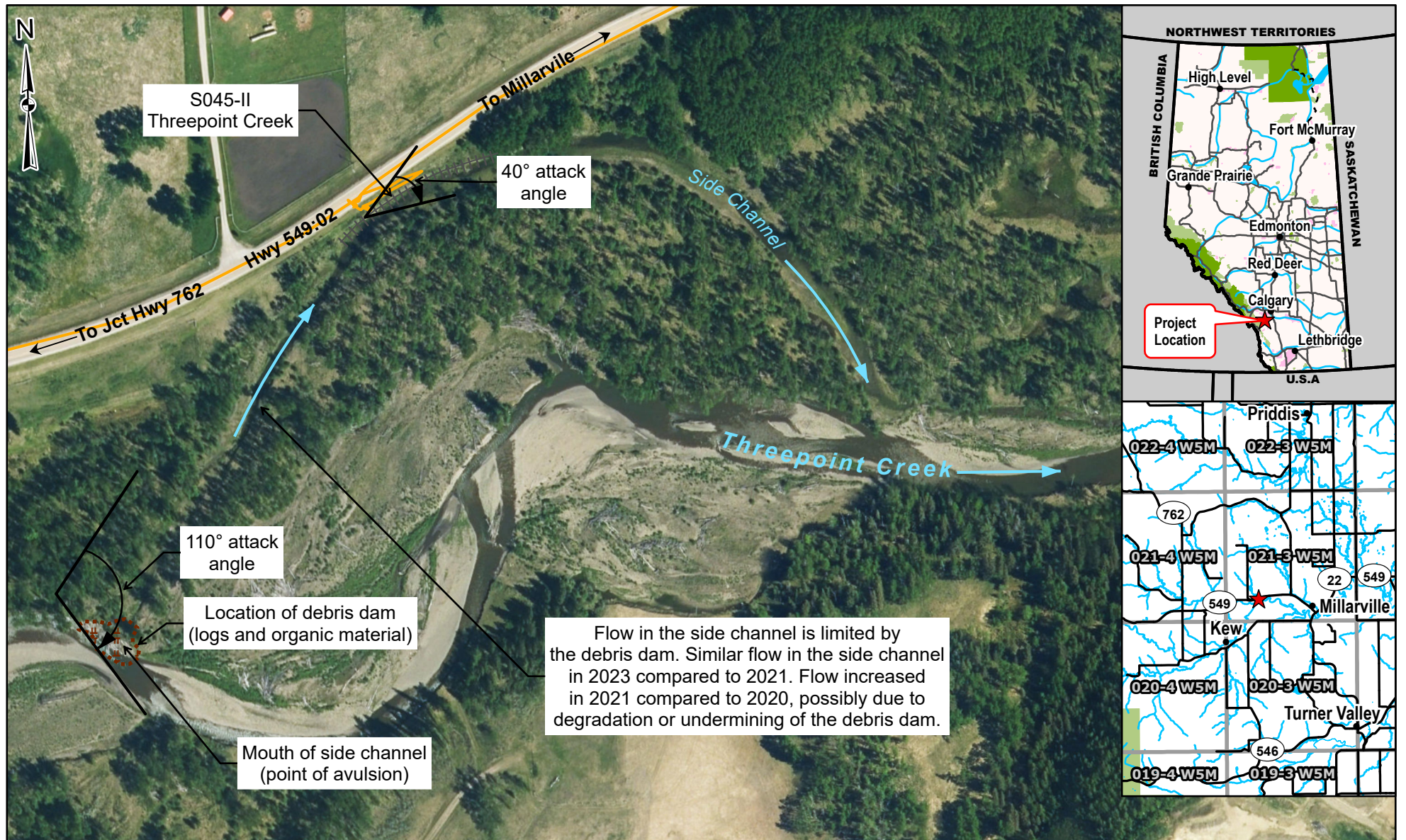
SUMMARY OF SITE INSTRUMENTATION:  None  LAST READING DATE: N/A	INSPECTED BY: Chris Grapel (KCB) Peter Roy (KCB) Renato Macciotta (U of A) Roger Skirrow (AT) Alex Frotten (AT) Maury Siddons (AT)
PRIMARY SITE ISSUE: Erosion on the outside of a creek bend. The crest of the side channel erosion scarp is approximately 7.2 m from the edge of the pavement.	
APPROXIMATE DIMENSIONS: Approximately 80 m length of highway, erosion scarp approximately 8 m in height, sloped approximately 0.5H:1V.	
DATE OF ANY REMEDIAL ACTION: None.	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X	None observed		X
Slope Movement		X			X
Erosion	X		Ongoing erosion of creek bank, minimal change since 2021		X
Seepage	X		Some seepage observed at the toe of bank in previous inspections. None observed in 2023.	X	
Culvert Distress		X			X

<b>COMMENTS</b>
<p>The side channel adjacent to Site II became blocked by a wood debris dam deposited during the flood event of June 2013, which restricted flow in the side channel. Increased side channel flow was observed during the 2020 and 2021 site visits compared to 2019, suggesting that the debris dam is decaying and breaking down and allowing more water to flow into the side channel. The channel flow in May 2023 was similar or slightly lower than what was observed in July 2021.</p> <p>The 2020 observations noted that the creek has started outflanking the debris dam on the upstream side. KCB were unable to visit the debris dam in 2021 and 2023 due to increased flow in the channel and having to access the debris dam via private property.</p> <p>No change in condition of the erosion scarp observed in 2023. Increasing flow in the side channel may lead to reactivation of earth slope toe erosion.</p>

<p>The fence at the top of the eroded slope has been undermined and 5 posts have fallen over. No change since 2021.</p>	
<p>A pipeline is present, located between highway and the side channel and running parallel to the highway, as identified using AbaData.</p>	
<p>A tension crack appeared to be forming in the embankment side slope, approximately 1.8 m upslope of the existing bank erosion crest. The tension crack was not able to be found during the 2023 inspection.</p>	
<p>Preliminary design of repair options has been completed, including bank reconstruction and riprap placement. In the short-term, HTCB should be installed to minimize potential for motorists going over the steep erosion scarp as it is located within the clear zone.</p>	
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<p>Peter Roy., P.Eng. Civil Engineer</p>	





0 100 Metres



**Photo 1** Highway slope above area of toe erosion on secondary channel S045-II. Photo was taken facing northeast on May 9, 2023. (Photo 2 shows 2021 water level)



**Photo 2** Flow from 2021 appears to be similar or higher than 2023. Photo was taken facing southwest on July 5, 2021.





**Photo 3** Similar or slightly decreased flow observed in the side channel when compared to 2021. Photo was taken facing southwest on May 9, 2023. (Photo 4 shows 2021 water level)



**Photo 4** Flow from 2021 appears to be similar or higher than 2023. Photo was taken facing southwest on May 9, 2023.

