File 01097 - Oldman River near Fort Macleod

Hydrotechnical File History

1890 Ferry in operation prior to this.

1902 Severe flooding on the Oldman River (return period not known)

1905 Petition for bridge by local residents. Cross-sections taken at numerous locations.

1908 Another petition. Major flood (1:150 year estimate)

1909 Bridge constructed 3 – 53.3m steel through trusses on concrete substructure and 5-5.2m approach spans on piles.

1923 3 – 6.1m spans of overflow channel north of bridge washed out (file 1285). River 0.15m above bank (1:250 year estimate)

1928 North bank cut badly, one bent of piles from steel in channel. U/S pile broken, other 3 badly decayed

1929 Protection work constructed on North bank. Piles driven and sheeted with plank. Bent reconstructed.

1936 Approach rebuilt. New 1-10.9m and 2-9.1m timber spans. Cross section shows deck to streambed as 7.5m.

1953 Flooding – high water went from 2.9m to peak of 7.1m. Comparable to June 1902 flood. HWM 2.7m below top of girders. South abutment scoured to the ends of the wing walls. Gravel bars removed under bridge, dyke constructed to direct flooding away from smaller bridges in overflow channels.

1954 South bank eroding, fear loss of sewage plant nearby. Scour at south abutment and bank – gravel dumped and faced with rock to prevent failure.

1956 North approach spans replaced with 1-8.5m treated timber span. Bridge now 3-53.3m steel through trusses and 1-8.5m timber approach.

1964 North head slope washing out. Repaired with rip rap

1965 South bent replaced, riprap placed on south bank and head slope, south wingwall replaced.

1975 Estimated 1:67 year flood. Elev. 1227.24m

1979 Groynes placed u/s of bridge by AEP.

1984 Drift removed.

1986 Channel problems – meeting with town of Ft. Macleod. Some scour, only one span is carrying flow.

1987 Ft. Macleod Floodplain Study (in library:503-192)

1989 Proposed river training from AEP due to eroding north bank. Gravel bar removed from channel and

placed on south bank upstream. Large rocks obstructing channel under north approach, large scour hole at south abutment observed.

1991 South headslope repaired and class2 riprap placed

1992 Rock noted to be piled against pier, protection work not done as per DD-1387

1994 Bim: Deck to water is 6.5m, water to bed is 1.75m. Hwm is 3.5m above streambed (2.1m below stringers).

1995 Flooding – Geodetic Elevation = 938.97 m

1999 Scour Report by Trillium Eng.

2005 Photo taken on June 9 showing highwater mark on piers.

2009 Scour survey by MSI.

2013 AT Post flood bridge inspection reported drift line approx. 1.8 m below bottom chord.

2013 Scour survey by MMM Group.

2019 Scour survey by Trout Hydrology.