



Cold Spring Creek Annual Dike Inspection

Introduction

The dike/bank protection works was inspected on May 29, 2013. The dike/bank protection works section below the Highway 93/95 was inspected between 12:05 and 12:30 pm, with the dam to highway section inspected between 2:00 and 2:30 pm. Weather conditions at the time of inspection was partially overcast and approximately 21⁰ C.

Inspector of Dikes Information

The following information has been extracted from the April 19 2013 Inspector of Dikes (35050-20 Mailout, 35050-20/IOD Dike Files), Annual Dike Inspection Reporting and 2013 Spring Freshet letter.

Watercourse	Cold Spring Creek	Structure Type	Dike
Watercourse 2		Ancillary Works	
GPS Number	330	Structure Length	484 m
Dike Name	Cold Spring Creek	NAD 83 Map Number	
Region	Kootenay	Floodplain Maps	
		UTM Northing	5 576 382
		UTM Easting	11U 580 578
		Geographic Features	Riverine
		Type of Flooding	Spring Freshet
		Local Authority Under EPA	East Kootenay Regional District
		Regulated Under DMA	Yes

Upstream Conditions

The upstream conditions above the dike/bank protection works were normal. The culvert inlet for the culvert under Fairmont Resort Road had the trunk end of a placed poplar tree partially blocking the inlet. No build up of material had occurred and a Fairmont Hotsprings Resort employee was advised of the issue. All other culverts were clear. The upstream dam which is owned by FHSR had some sediment infilling in the upstream section of the reservoir. FHSR has been advised of the infilling situation.



May 29, 2013 Reservoir Sediment Deposition



May 11, 2012 Reservoir Sediment Deposition

Downstream Conditions

The channel from Highway 93/95 to the debris trap (dike/bank protected area) is in good condition. This section of creek channel was brushed in the fall of 2012 and allows for ease of inspection of the rip rap lined banks and maintains the integrity of the works.



2013 Brushed Channel



2012 Channel Pre-Brushing

The debris trap on Cold Spring Creek has significantly infilled with sediment and is scheduled for removal this fall, when freshet flows have subsided and tourism activity is reduced.



Debris Trap Sediment Deposition



Debris Trap Sediment Migration into Cold Spring Creek Channel

Planned Maintenance and Channel Assessment

The planned maintenance and development of a hazard assessment for the watershed is:

- Section 9 application for Works in and Around a Stream, June 2013
- Water license application for Cold Spring Creek, June 2013
- Debris trap sediment removal, fall of 2013
- Creek channel monitoring for vegetation removal, quarterly
- Commissioning of a Hazard and Risk Assessment for Cold Spring Creek tentatively scheduled for 2014 or 2015. Dependent on budget funds available

Summary

The July 15, 2012 Fairmont Creek Debris Flow event has prompted the need for the development of a similar Hazard and Risk Assessment for Cold Spring Creek. Mobilization of sediment has occurred fairly regularly on Cold Spring Creek, but with little damage or expense to this point. Should hazards be identified then funding applications can be developed for any potential mitigation measures. The creek channel is in good condition along the 484 m of dike/bank protection. The debris trap at the end the bank protection has infilled with sediment and a Section 9 application for works in and around a stream will be submitted in June with removals scheduled for early fall. The RDEK will apply for a water license on Cold Spring Creek so maintenance of the debris trap does not require a Section 9 application and can be executed through a notification for water license maintenance.

Jim Maletta, RDEK Engineering Technician