

Appendix E

2009 Pawtuckaway Lake Fall Drawdown Hydrograph

Lamprey River Water Management Plan

August 2013

2009 Pawtuckaway Lake Fall Drawdown Hydrograph

During the October, 2009 annual fall lake drawdown at Pawtuckaway, the hydrograph data was studied to understand how releases at Pawtuckaway will be transformed when they show up at the designated reach. This investigation was to support the understanding of relief flows. Water began to be released at Pawtuckaway at 11:15 AM on 13 October 2009. As observed in Figure E.1, flow was recorded at the USGS gages on the Lamprey River at both Langford Road in Raymond (upstream of where the Pawtuckaway flows enter the Lamprey River) and at Packers Falls in Newmarket. The Langford gage indicates that there was no rainfall runoff occurring during this event, as the flow is nearly constant. The Packers Falls gage demonstrates that in 2009 the water released from Pawtuckaway started to show up in about 24 hours.

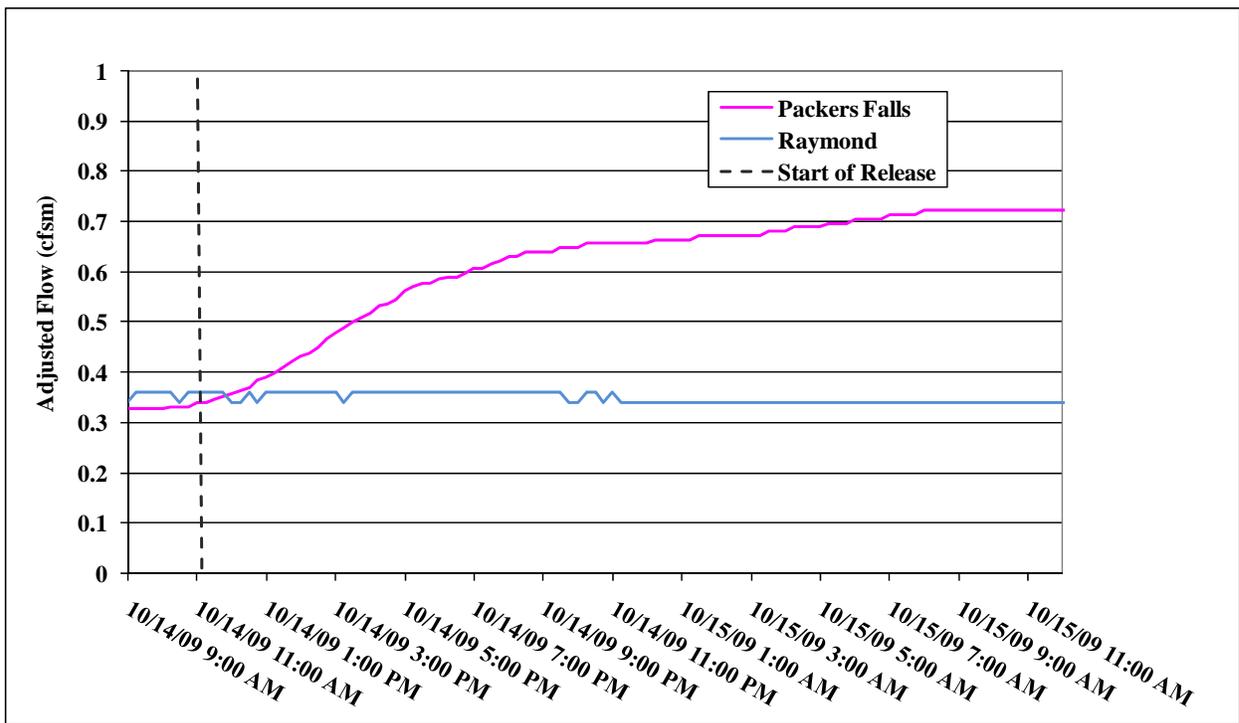


Figure E.1. October 13, 2009 Lamprey River hydrographs.

The planned annual, 7-foot, fall drawdown of Pawtuckaway Lake started on October 13, 2009. Stoplogs were removed from Dolloff Dam or Drowns Dam. The NH Dam Bureau reported that on October 6, 2009 the lake was at full pool (25 feet) and there was no flow over the spillways. The drawdown period lasted until November 30, approximately 50 days, with approximately 7 flow changes generally occurring every 8 to 10 days, but sometimes only a day apart.