

# Flood mitigation and protection

## 2015 Update

### Permanent Dikes

Over seven kilometers of permanent dikes have been constructed along the Highwood River. These have been built to protect against a river flow rate of 1850 cubic metres per second, plus an additional metre of free board protection. This includes raising of 498 Avenue by the MD of Foothills to protect the eastern portion of town.

As a comparison, the 2013 flood produced river flow rates of approximately 1820 cubic metres per second, which was the largest ever recorded in the last 100 years. The permanent dikes have been functionally operational since May of 2014, but there remains some landscaping work to be completed in the spring.

### Interim Dikes

Currently the southern parts of town along 12 Avenue S.W. are being protected by interim diking measures that have been built to provide protection to river flow rates of 1200 cubic metres per second, which is well above all other flood events in the last 100 years, with the exception of 2013. These interim measures will remain in place until permanent measures are approved and constructed.

### Increasing capacity

The Highwood River's capacity has been increased through the removal of the CP Rail Bridge and more than 60,000 cubic metres of rock and flood debris that was removed from the river in 2013. Work is currently underway for the design of a new Centre Street bridge.

### Room for the river

Council made a difficult decision in the fall of 2013 to ask the Government of Alberta to undertake a buyout program for the neighbourhood of Wallaceville. Given the new dike system and the flow of the Highwood River, it was just not possible to protect the Wallaceville area in future high water events. It will be restored to an undeveloped state which will allow the river to flow more freely.

The Government of Alberta is planning to begin the majority of the demolition in the summer of 2015. Part of this process also includes a parks master plan for the area that is currently being developed.

## **2015 program**

### **Little Bow Canal Dike**

The Government of Alberta started construction on upgrades to Little Bow Canal Dike in late January and are expected to be complete before the 2015 flood season. The dike is being designed to protect against the river level experienced in the 2013 flood, plus an additional metre of protection. This is the same design standard as all other permanent dikes in High River.

### **In-process Dikes**

The areas around the in-process dikes shown on the map provide natural flood mitigation protection to High River. Dikes to enhance the natural level of protection to the 2013 flood level plus one metre will be constructed pending funding, regulatory approval and landowner negotiation.